Fernando Gsl Brando

List of Publications by Year in Descending Order

42 papers	4,048 citations	21 h-index	44 g-index
44 ext. papers	5,734 ext. citations	6.2 avg, IF	5.55 L-index

#	Paper	IF	Citations
42	Models of Quantum Complexity Growth. *PRX Quantum*, **2021**, 2,	6.1	10
41	Clustering of Conditional Mutual Information for Quantum Gibbs States above a Threshold Temperature. *Physical Review Letters*, **2020**, 124, 220601	7.4	10
40	Adversarial Hypothesis Testing and a Quantum Stein's Lemma for Restricted Measurements. *IEEE Transactions on Information Theory*, **2020**, 66, 5037-5054	2.8	3
39	Quantum Error Correcting Codes in Eigenstates of Translation-Invariant Spin Chains. *Physical Review Letters*, **2019**, 123, 110502	7.4	17
38	Thermodynamic Capacity of Quantum Processes. *Physical Review Letters*, **2019**, 122, 200601	7.4	15
37	Quantum Approximate Markov Chains are Thermal. *Communications in Mathematical Physics*, **2019**, 370, 117-149	2	8
36	Quantum supremacy using a programmable superconducting processor. *Nature*, **2019**, 574, 505-510	50.4	1760
35	Finite Correlation Length Implies Efficient Preparation of Quantum Thermal States. *Communications in Mathematical Physics*, **2019**, 365, 1-16	2	22
34	Three-Dimensional Color Code Thresholds via Statistical-Mechanical Mapping. *Physical Review Letters*, **2018**, 120, 180501	7.4	25
33	Quantum de Finetti Theorems Under Local Measurements with Applications. *Communications in Mathematical Physics*, **2017**, 353, 469-506	2	14
32	Thermalization and Return to Equilibrium on Finite Quantum Lattice Systems. *Physical Review Letters*, **2017**, 118, 140601	7.4	28
31	Quantum Speed-Ups for Solving Semidefinite Programs **2017**,		41
30	. *IEEE Transactions on Information Theory*, **2017**, 63, 7592-7611	2.8	3
29	Efficient Quantum Pseudorandomness. *Physical Review Letters*, **2016**, 116, 170502	7.4	27
28	Product-State Approximations to Quantum States. *Communications in Mathematical Physics*, **2016**, 342, 47-80	2	10
27	Randomness Amplification under Minimal Fundamental Assumptions on the Devices. *Physical Review Letters*, **2016**, 117, 230501	7.4	18
26	Quantum Gibbs Samplers: The Commuting Case. *Communications in Mathematical Physics*, **2016**, 344, 915-957	2	30

25	Local Random Quantum Circuits are Approximate Polynomial-Designs. *Communications in Mathematical Physics*, **2016**, 346, 397-434	2	111
24	Exponential Decay of Correlations Implies Area Law. *Communications in Mathematical Physics*, **2015**, 333, 761-798	2	54
23	Area law for fixed points of rapidly mixing dissipative quantum systems. *Journal of Mathematical Physics*, **2015**, 56, 102202	1.2	13
22	The second laws of quantum thermodynamics. *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, 3275-9	11.5	354
21	Adversarial hypothesis testing and a quantum stein's lemma for restricted measurements **2014**,		1
20	An area law for entanglement from exponential decay of correlations. *Nature Physics*, **2013**, 9, 721-726	16.2	68
19	Product-state approximations to quantum ground states **2013**,		12
18	Entanglement Cost of Quantum Channels. *IEEE Transactions on Information Theory*, **2013**, 59, 6779-6795	2.8	44
17	A Smooth Entropy Approach to Quantum Hypothesis Testing and the Classical Capacity of Quantum Channels. *IEEE Transactions on Information Theory*, **2013**, 59, 8014-8026	2.8	17
16	Resource theory of quantum states out of thermal equilibrium. *Physical Review Letters*, **2013**, 111, 250404	7.4	338
15	Quantum de finetti theorems under local measurements with applications **2013**,		17
14	Hypercontractivity, sum-of-squares proofs, and their applications **2012**,		51
13	Detection of multiparticle entanglement: quantifying the search for symmetric extensions. *Physical Review Letters*, **2012**, 109, 160502	7.4	15
12	Entangled inputs cannot make imperfect quantum channels perfect. *Physical Review Letters*, **2011**, 106, 230502	7.4	13
11	One-Shot Rates for Entanglement Manipulation Under Non-entangling Maps. *IEEE Transactions on Information Theory*, **2011**, 57, 1754-1760	2.8	70
10	A quasipolynomial-time algorithm for the quantum separability problem **2011**,		18
9	A Reversible Theory of Entanglement and its Relation to the Second Law. *Communications in Mathematical Physics*, **2010**, 295, 829-851	2	44
8	A Generalization of Quantum Stein's Lemma. *Communications in Mathematical Physics*, **2010**, 295, 791-828	2	64

7	Entanglement theory and the second law of thermodynamics. *Nature Physics*, **2008**, 4, 873-877	16.2	114
6	Quantum many-body phenomena in coupled cavity arrays. *Laser and Photonics Reviews*, **2008**, 2, 527-556	8.3	354
5	Remarks on the Equivalence of Full Additivity and Monotonicity for the Entanglement Cost. *Open Systems and Information Dynamics*, **2007**, 14, 333-339	0.4	8
4	Quantitative entanglement witnesses. *New Journal of Physics*, **2007**, 9, 46-46	2.9	160
3	Entanglement quantifiers, entanglement crossover and phase transitions. *New Journal of Physics*, **2006**, 8, 260-260	2.9	2
2	Entanglement and quantum order parameters. *New Journal of Physics*, **2005**, 7, 254-254	2.9	12
1	Separable multipartite mixed states: operational asymptotically necessary and sufficient conditions. *Physical Review Letters*, **2004**, 93, 220503	7.4	51