

# Roberto M Serra

## List of Publications by Year in descending order

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50  
papers

2,848  
citations

304743

22  
h-index

197818

49  
g-index

50  
all docs

50  
docs citations

50  
times ranked

1489  
citing authors

#	ARTICLE	IF	CITATIONS
1	Experimental assessment of physical realism in a quantum-controlled device. <i>Communications Physics</i> , 2022, 5, .	5.3	15
2	Easy Access to Energy Fluctuations in Nonequilibrium Quantum Many-Body Systems. <i>Physical Review Letters</i> , 2021, 127, 030602.	7.8	6
3	Experimental Validation of Fully Quantum Fluctuation Theorems Using Dynamic Bayesian Networks. <i>Physical Review Letters</i> , 2021, 127, 180603.	7.8	19
4	Employing non-Markovian effects to improve the performance of a quantum Otto refrigerator. <i>Physical Review A</i> , 2020, 102, .	2.5	25
5	Work-distribution quantumness and irreversibility when crossing a quantum phase transition in finite time. <i>Physical Review Research</i> , 2020, 2, .	3.6	11
6	Reversing the direction of heat flow using quantum correlations. <i>Nature Communications</i> , 2019, 10, 2456.	12.8	97
7	Coherence effects in the performance of the quantum Otto heat engine. <i>Physical Review A</i> , 2019, 99, .	2.5	89
8	Experimental Characterization of a Spin Quantum Heat Engine. <i>Physical Review Letters</i> , 2019, 123, 240601.	7.8	204
9	Verifying detailed fluctuation relations for discrete feedback-controlled quantum dynamics. <i>Physical Review A</i> , 2018, 97, .	2.5	5
10	Role of quantum coherence in the thermodynamics of energy transfer. <i>Physical Review E</i> , 2018, 97, 062105.	2.1	38
11	DFT-inspired methods for quantum thermodynamics. <i>Scientific Reports</i> , 2017, 7, 4655.	3.3	15
12	Experimental Rectification of Entropy Production by Maxwell's Demon in a Quantum System. <i>Physical Review Letters</i> , 2016, 117, 240502.	7.8	106
13	Practical security analysis of two-way quantum-key-distribution protocols based on nonorthogonal states. <i>Physical Review A</i> , 2015, 92, .	2.5	14
14	Irreversibility and the Arrow of Time in a Quenched Quantum System. <i>Physical Review Letters</i> , 2015, 115, 190601.	7.8	105
15	Coherent measurements in quantum metrology. <i>New Journal of Physics</i> , 2015, 17, 023057.	2.9	31
16	Nonadiabatic quantum state engineering driven by fast quench dynamics. <i>Physical Review A</i> , 2014, 89, .	2.5	18
17	Experimental Reconstruction of Work Distribution and Study of Fluctuation Relations in a Closed Quantum System. <i>Physical Review Letters</i> , 2014, 113, 140601.	7.8	288
18	Quantum Discord in Nuclear Magnetic Resonance Systems at Room Temperature. <i>Brazilian Journal of Physics</i> , 2013, 43, 86-104.	1.4	18

#	ARTICLE	IF	CITATIONS
19	Quantum delayed-choice experiment in an environment with arbitrary white noise. Journal of Physics A: Mathematical and Theoretical, 2013, 46, 245301.	2.1	3
20	Thermodynamic cost of acquiring information. Physical Review E, 2013, 88, 062123.	2.1	6
21	OBSERVER INVARIANCE OF THE COLLAPSE POSTULATE OF QUANTUM MECHANICS. International Journal of Modern Physics B, 2013, 27, 1345013.	2.0	1
22	Nuclear magnetic resonance quantum information processing. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2012, 370, 4615-4619.	3.4	11
23	Preface. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2012, 370, 4613-4614.	3.4	3
24	CLASSICALITY WITNESS FOR TWO-QUBIT STATES. International Journal of Quantum Information, 2012, 10, 1250028.	1.1	19
25	On the quantumness of correlations in nuclear magnetic resonance. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2012, 370, 4821-4836.	3.4	20
26	Experimental Estimate of a Classicality Witness via a Single Measurement. Physical Review Letters, 2012, 108, 063601.	7.8	26
27	Experimental analysis of the quantum complementarity principle. Physical Review A, 2012, 85, .	2.5	64
28	Long-range quantum discord in critical spin systems. Physics Letters, Section A: General, Atomic and Solid State Physics, 2012, 376, 1540-1544.	2.1	59
29	Equivalence between Redfield- and master-equation approaches for a time-dependent quantum system and coherence control. Physical Review A, 2011, 83, .	2.5	17
30	Experimentally Witnessing the Quantumness of Correlations. Physical Review Letters, 2011, 107, 070501.	7.8	79
31	THEORETICAL AND EXPERIMENTAL ASPECTS OF QUANTUM DISCORD AND RELATED MEASURES. International Journal of Quantum Information, 2011, 09, 1837-1873.	1.1	100
32	Quantum computation in continuous time using dynamic invariants. Physics Letters, Section A: General, Atomic and Solid State Physics, 2011, 375, 3343-3347.	2.1	32
33	Environment-Induced Sudden Transition in Quantum Discord Dynamics. Physical Review Letters, 2011, 107, 140403.	7.8	137
34	Quantum and classical thermal correlations in the $\langle XY \rangle$ spin- $\langle \frac{1}{2} \rangle$ system. Physical Review A, 2010, 82, .	2.5	204
35	Sudden change in quantum and classical correlations and the Unruh effect. Physical Review A, 2010, 81, .	2.5	59
36	Nonclassical correlation in NMR quadrupolar systems. Physical Review A, 2010, 81, .	2.5	75

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37	System-reservoir dynamics of quantum and classical correlations. <i>Physical Review A</i> , 2010, 81, .	2.5	225
38	Classical and quantum correlations under decoherence. <i>Physical Review A</i> , 2009, 80, .	2.5	450
39	A general treatment of geometric phases and dynamical invariants. <i>Europhysics Letters</i> , 2008, 82, 20007.	2.0	9
40	Nonadiabatic geometric phase induced by a counterpart of the Stark shift. <i>Europhysics Letters</i> , 2005, 72, 21-27.	2.0	8
41	Electromagnetically induced transparency and dynamic Stark effect in coupled quantum resonators. <i>Europhysics Letters</i> , 2005, 72, 383-389.	2.0	3
42	Frequency up- and down-conversions in two-mode cavity quantum electrodynamics. <i>Physical Review A</i> , 2005, 71, .	2.5	59
43	Anyons and transmutation of statistics via a vacuum-induced Berry phase. <i>Physical Review A</i> , 2004, 70, .	2.5	10
44	Engineering squeezed states in high-Q-cavities. <i>Physical Review A</i> , 2004, 69, .	2.5	22
45	Proposal to produce long-lived mesoscopic superpositions through an atom-driven field interaction. <i>Journal of Optics B: Quantum and Semiclassical Optics</i> , 2003, 5, 391-395.	1.4	14
46	Single-particle quantum tunnelling in ionic traps. <i>Journal of Optics B: Quantum and Semiclassical Optics</i> , 2003, 5, 237-242.	1.4	2
47	High-fidelity teleportation of entanglements of running-wave field states. <i>Journal of Optics B: Quantum and Semiclassical Optics</i> , 2002, 4, 316-325.	1.4	11
48	The effect of combination of magnetic field and low temperature on doped quantum wells. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2001, 11, 190-193.	2.7	0
49	Phenomenological-operator approach to introduce damping effects on radiation field states. <i>Journal of Optics B: Quantum and Semiclassical Optics</i> , 2000, 2, 792-798.	1.4	15
50	Temperature dependence of the absorption coefficient in doped quantum wells. <i>Brazilian Journal of Physics</i> , 1999, 29, 723-726.	1.4	1