

# Filippo Caruso

## List of Publications by Year in descending order

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72  
papers

2,985  
citations

218677

26  
h-index

161849

54  
g-index

72  
all docs

72  
docs citations

72  
times ranked

2207  
citing authors

#	ARTICLE	IF	CITATIONS
1	Highly efficient energy excitation transfer in light-harvesting complexes: The fundamental role of noise-assisted transport. <i>Journal of Chemical Physics</i> , 2009, 131, .	3.0	527
2	Noise-assisted energy transfer in quantum networks and light-harvesting complexes. <i>New Journal of Physics</i> , 2010, 12, 065002.	2.9	262
3	Quantum channels and memory effects. <i>Reviews of Modern Physics</i> , 2014, 86, 1203-1259.	45.6	232
4	Entanglement and entangling power of the dynamics in light-harvesting complexes. <i>Physical Review A</i> , 2010, 81, .	2.5	181
5	Experimental realization of quantum zeno dynamics. <i>Nature Communications</i> , 2014, 5, 3194.	12.8	129
6	Analysis of self-organized criticality in the Olami-Feder-Christensen model and in real earthquakes. <i>Physical Review E</i> , 2007, 75, 055101.	2.1	124
7	Nonadditive entropy reconciles the area law in quantum systems with classical thermodynamics. <i>Physical Review E</i> , 2008, 78, 021102.	2.1	112
8	One-mode bosonic Gaussian channels: a full weak-degradability classification. <i>New Journal of Physics</i> , 2006, 8, 310-310.	2.9	111
9	Enhanced energy transport in genetically engineered excitonic networks. <i>Nature Materials</i> , 2016, 15, 211-216.	27.5	82
10	Fast escape of a quantum walker from an integrated photonic maze. <i>Nature Communications</i> , 2016, 7, 11682.	12.8	72
11	Multi-mode bosonic Gaussian channels. <i>New Journal of Physics</i> , 2008, 10, 083030.	2.9	70
12	Degradability of Bosonic Gaussian channels. <i>Physical Review A</i> , 2006, 74, .	2.5	68
13	Noise-Enhanced Classical and Quantum Capacities in Communication Networks. <i>Physical Review Letters</i> , 2010, 105, 190501.	7.8	64
14	Spatial entanglement of bosons in optical lattices. <i>Nature Communications</i> , 2013, 4, 2161.	12.8	64
15	Stabilizing open quantum batteries by sequential measurements. <i>Physical Review Research</i> , 2020, 2, .	3.6	55
16	Quantum limits for the magnetic sensitivity of a chemical compass. <i>Physical Review A</i> , 2012, 85, .	2.5	53
17	Observation of Noise-Assisted Transport in an All-Optical Cavity-Based Network. <i>Physical Review Letters</i> , 2015, 115, 083601.	7.8	52
18	Coherent optimal control of photosynthetic molecules. <i>Physical Review A</i> , 2012, 85, .	2.5	44

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19	Universally optimal noisy quantum walks on complex networks. <i>New Journal of Physics</i> , 2014, 16, 055015.	2.9	39
20	Quantum diffusion with disorder, noise and interaction. <i>New Journal of Physics</i> , 2013, 15, 045007.	2.9	35
21	Realistic and verifiable coherent control of excitonic states in a light-harvesting complex. <i>New Journal of Physics</i> , 2014, 16, 045007.	2.9	35
22	Quantum Zeno Dynamics Through Stochastic Protocols. <i>Annalen Der Physik</i> , 2017, 529, 1600206.	2.4	34
23	Stochastic quantum Zeno by large deviation theory. <i>New Journal of Physics</i> , 2016, 18, 013048.	2.9	31
24	Simulation of noise-assisted transport via optical cavity networks. <i>Physical Review A</i> , 2011, 83, .	2.5	28
25	Probing biological light-harvesting phenomena by optical cavities. <i>Physical Review B</i> , 2012, 85, .	3.2	28
26	Olami-Feder-Christensen model on different networks. <i>European Physical Journal B</i> , 2006, 50, 243-247.	1.5	27
27	Optimal unitary dilation for bosonic Gaussian channels. <i>Physical Review A</i> , 2011, 84, .	2.5	24
28	Nonequilibrium quantum-heat statistics under stochastic projective measurements. <i>Physical Review E</i> , 2018, 98, .	2.1	24
29	Experimental proof of quantum Zeno-assisted noise sensing. <i>New Journal of Physics</i> , 2019, 21, 113056.	2.9	23
30	Noise-robust quantum sensing via optimal multi-probe spectroscopy. <i>Scientific Reports</i> , 2018, 8, 14278.	3.3	21
31	Stochastic quantum Zeno-based detection of noise correlations. <i>Scientific Reports</i> , 2016, 6, 38650.	3.3	19
32	Optimal preparation of quantum states on an atom-chip device. <i>Physical Review A</i> , 2016, 93, .	2.5	19
33	Ergodicity in randomly perturbed quantum systems. <i>Quantum Science and Technology</i> , 2017, 2, 015007.	5.8	19
34	OPINION DYNAMICS AND DECISION OF VOTE IN BIPOLAR POLITICAL SYSTEMS. <i>International Journal of Modern Physics C</i> , 2005, 16, 1473-1487.	1.7	18
35	“Momentum rejuvenation”™ underlies the phenomenon of noise-assisted quantum energy flow. <i>New Journal of Physics</i> , 2015, 17, 013057.	2.9	18
36	Reconstructing quantum entropy production to probe irreversibility and correlations. <i>Quantum Science and Technology</i> , 2018, 3, 035013.	5.8	18

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37	Prediction of extreme events in the OFC model on a small world network. European Physical Journal B, 2011, 79, 7-11.	1.5	17
38	Robustness of a quantum key distribution with two and three mutually unbiased bases. Physical Review A, 2005, 72, .	2.5	15
39	Teleportation-Induced Correlated Quantum Channels. Physical Review Letters, 2010, 104, 020503.	7.8	14
40	Qubit channels with small correlations. Physical Review A, 2008, 77, .	2.5	12
41	Disorder and dephasing as control knobs for light transport in optical fiber cavity networks. Scientific Reports, 2016, 6, 37791.	3.3	12
42	Fisher information from stochastic quantum measurements. Physical Review A, 2016, 94, .	2.5	12
43	Noise sensing via stochastic quantum Zeno. Physics Letters, Section A: General, Atomic and Solid State Physics, 2020, 384, 126244.	2.1	12
44	Quantum Zeno and Anti-Zeno Probes of Noise Correlations in Photon Polarization. Physical Review Letters, 2022, 129, .	7.8	12
45	MULTIFRACTAL ANALYSIS OF MOUNT St. HELENS SEISMICITY AS A TOOL FOR IDENTIFYING ERUPTIVE ACTIVITY. Fractals, 2006, 14, 179-186.	3.7	11
46	Learning the noise fingerprint of quantum devices. Quantum Machine Intelligence, 2022, 4, 1.	4.8	10
47	Qubit quantum channels: A characteristic function approach. Physical Review A, 2007, 76, .	2.5	9
48	Quantum state reconstruction on atom-chips. New Journal of Physics, 2015, 17, 093024.	2.9	9
49	Quantum state discrimination on reconfigurable noise-robust quantum networks. Physical Review Research, 2020, 2, .	3.6	8
50	Investigating the ocular temperature rise during femtosecond laser lens fragmentation: an in vitro study. Graefe's Archive for Clinical and Experimental Ophthalmology, 2015, 253, 2203-2210.	1.9	6
51	How to enhance quantum generative adversarial learning of noisy information. New Journal of Physics, 2021, 23, 053024.	2.9	6
52	Transfer-tensor description of memory effects in open-system dynamics and multi-time statistics. Quantum Science and Technology, 2022, 7, 025005.	5.8	6
53	Extensive nonadditive entropy in quantum spin chains. AIP Conference Proceedings, 2007, , .	0.4	5
54	Irreversibility mitigation in unital non-Markovian quantum evolutions. Physical Review Research, 2020, 2, .	3.6	5

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55	THE OLAMI-FEDER-CHRISTENSEN MODEL ON A SMALL-WORLD TOPOLOGY. , 2005, , .		5
56	Quantum reinforcement learning: the maze problem. Quantum Machine Intelligence, 2022, 4, .	4.8	5
57	Experimental Quantum Embedding for Machine Learning. Advanced Quantum Technologies, 2022, 5, .	3.9	5
58	Information flow and error scaling for fully quantum control. Physical Review Research, 2022, 4, .	3.6	4
59	Slow light amplification in a non-inverted gain medium. Europhysics Letters, 2005, 69, 938-944.	2.0	3
60	Advances in Sequential Measurement and Control of Open Quantum Systems. Proceedings (mdpi), 2019, 12, 11.	0.2	3
61	Role of the filter functions in noise spectroscopy. International Journal of Quantum Information, 2019, 17, 1941008.	1.1	3
62	Quantum Noise Sensing by Generating Fake Noise. Physical Review Applied, 2022, 17, .	3.8	3
63	Noise fingerprints in quantum computers: Machine learning software tools. Software Impacts, 2022, 12, 100260.	1.4	3
64	Self-Organized Criticality and earthquakes. AIP Conference Proceedings, 2007, , .	0.4	2
65	How to suppress dark states in quantum networks and bio-engineered structures. Journal of Physics A: Mathematical and Theoretical, 2018, 51, 365306.	2.1	2
66	Experimental multi-state quantum discrimination through optical networks. Quantum Science and Technology, 2022, 7, 025028.	5.8	2
67	A NEW APPROACH TO CHARACTERIZE QUBIT CHANNELS. International Journal of Quantum Information, 2008, 06, 621-626.	1.1	1
68	Noise enhanced transport in light-harvesting complexes and networks. , 2009, , .		1
69	Publisher's Note: Qubit channels with small correlations [Phys. Rev. A77, 052323 (2008)]. Physical Review A, 2008, 77, .	2.5	0
70	Entanglement Assisted Transport of Two Walkers in Noisy Quantum Networks. Proceedings (mdpi), 2019, 12, 36.	0.2	0
71	Quantum Stochastic Walk models for quantum state discrimination. Physics Letters, Section A: General, Atomic and Solid State Physics, 2020, 384, 126195.	2.1	0
72	Thermodynamic properties of stochastic quantum measurements. , 2019, , .		0