

# David Edward Bruschi

## List of Publications by Year in descending order

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45  
papers

1,535  
citations

331259

21  
h-index

301761

39  
g-index

45  
all docs

45  
docs citations

45  
times ranked

858  
citing authors

#	ARTICLE	IF	CITATIONS
1	Observer dependence of photon bunching: The influence of the relativistic redshift on Hong-Ou-Mandel interference. <i>Physical Review D</i> , 2022, 105, .	1.6	8
2	General solution of the time evolution of two interacting harmonic oscillators. <i>Physical Review A</i> , 2021, 103, .	1.0	12
3	Optimal estimation of time-dependent gravitational fields with quantum optomechanical systems. <i>Physical Review Research</i> , 2021, 3, .	1.3	13
4	Master-equation treatment of nonlinear optomechanical systems with optical loss. <i>Physical Review A</i> , 2021, 104, .	1.0	10
5	Spacetime effects on wavepackets of coherent light. <i>Physical Review D</i> , 2021, 104, .	1.6	15
6	Thermodynamics of relativistic quantum fields confined in cavities. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2020, 384, 126601.	0.9	7
7	Optimal estimation with quantum optomechanical systems in the nonlinear regime. <i>Physical Review A</i> , 2020, 101, .	1.0	21
8	Time-evolution of nonlinear optomechanical systems: interplay of mechanical squeezing and non-Gaussianity. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2020, 53, 075304.	0.7	18
9	Time evolution of two harmonic oscillators with cross-Kerr interactions. <i>Journal of Mathematical Physics</i> , 2020, 61, .	0.5	7
10	Time evolution of coupled multimode and multiresonator optomechanical systems. <i>Journal of Mathematical Physics</i> , 2019, 60, .	0.5	9
11	Enhanced continuous generation of non-Gaussianity through optomechanical modulation. <i>New Journal of Physics</i> , 2019, 21, 055004.	1.2	13
12	Quantum-metrology estimation of spacetime parameters of the Earth outperforming classical precision. <i>Physical Review A</i> , 2019, 99, .	1.0	11
13	Gravity in the quantum lab. <i>Advances in Physics: X</i> , 2018, 3, 1383184.	1.5	20
14	Space QUEST mission proposal: experimentally testing decoherence due to gravity. <i>New Journal of Physics</i> , 2018, 20, 063016.	1.2	36
15	Work drives time evolution. <i>Annals of Physics</i> , 2018, 394, 155-161.	1.0	5
16	â€Mechano-opticsâ€™: an optomechanical quantum simulator. <i>New Journal of Physics</i> , 2018, 20, 065004.	1.2	18
17	Quantum communications and quantum metrology in the spacetime of a rotating planet. <i>EPJ Quantum Technology</i> , 2017, 4, 7.	2.9	31
18	Entanglement, coherence, and redistribution of quantum resources in double spontaneous down-conversion processes. <i>Physical Review A</i> , 2017, 95, .	1.0	23

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19	Thermal noise in BEC-phononic gravitational wave detectors. EPJ Quantum Technology, 2016, 3, .	2.9	14
20	On the weight of entanglement. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2016, 754, 182-186.	1.5	7
21	Towards universal quantum computation through relativistic motion. Scientific Reports, 2016, 6, 18349.	1.6	20
22	Quantum thermodynamics for a model of an expanding Universe. Classical and Quantum Gravity, 2016, 33, 035003.	1.5	6
23	Thermodynamics of creating correlations: Limitations and optimal protocols. Physical Review E, 2015, 91, 032118.	0.8	48
24	Quantum estimation of the Schwarzschild spacetime parameters of the Earth. Physical Review D, 2014, 90, .	1.6	53
25	Phonon creation by gravitational waves. New Journal of Physics, 2014, 16, 085003.	1.2	71
26	Testing the effects of gravity and motion on quantum entanglement in space-based experiments. New Journal of Physics, 2014, 16, 053041.	1.2	33
27	Quantum metrology for relativistic quantum fields. Physical Review D, 2014, 89, .	1.6	77
28	Repeat-until-success quantum repeaters. Physical Review A, 2014, 90, .	1.0	18
29	Spacetime effects on satellite-based quantum communications. Physical Review D, 2014, 90, .	1.6	85
30	Relativistic Quantum Metrology: Exploiting relativity to improve quantum measurement technologies. Scientific Reports, 2014, 4, 4996.	1.6	76
31	Time evolution techniques for detectors in relativistic quantum information. Journal of Physics A: Mathematical and Theoretical, 2013, 46, 165303.	0.7	65
32	Fermionic-mode entanglement in quantum information. Physical Review A, 2013, 87, .	1.0	85
33	Architectural considerations in hybrid quantum-classical networks (Invited Paper). , 2013, , .		4
34	On the robustness of entanglement in analogue gravity systems. New Journal of Physics, 2013, 15, 113016.	1.2	31
35	Mode-mixing quantum gates and entanglement without particle creation in periodically accelerated cavities. New Journal of Physics, 2013, 15, 073052.	1.2	23
36	Localized projective measurement of a quantum field in non-inertial frames. Classical and Quantum Gravity, 2013, 30, 235006.	1.5	40

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37	Relativistic Motion Generates Quantum Gates and Entanglement Resonances. Physical Review Letters, 2013, 111, 090504.	2.9	32
38	Entanglement generation in relativistic cavity motion. Journal of Physics: Conference Series, 2013, 442, 012024.	0.3	2
39	Quantum gates and multipartite entanglement resonances realized by nonuniform cavity motion. Physical Review D, 2012, 86, .	1.6	31
40	Kinematic entanglement degradation of fermionic cavity modes. Physical Review D, 2012, 85, .	1.6	35
41	Particle and antiparticle bosonic entanglement in noninertial frames. Physical Review D, 2012, 86, .	1.6	59
42	Voyage to Alpha Centauri: Entanglement degradation of cavity modes due to motion. Physical Review D, 2012, 85, .	1.6	73
43	Motion generates entanglement. Physical Review D, 2012, 85, .	1.6	44
44	CHARGED UNRUH EFFECT ON GEON SPACETIMES. , 2012, , .		0
45	Unruh effect in quantum information beyond the single-mode approximation. Physical Review A, 2010, 82, .	1.0	226