

Fabrizio Illuminati

List of Publications by Year in descending order

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141
papers

5,804
citations

76196

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76769

74
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142
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142
docs citations

142
times ranked

2554
citing authors

#	ARTICLE	IF	CITATIONS
1	Finite-temperature quantum discordant criticality. <i>Physical Review B</i> , 2022, 105, .	1.1	2
2	Neutrino Dynamics in a Quantum-Corrected Schwarzschild Spacetime. <i>Universe</i> , 2022, 8, 202.	0.9	2
3	Topological Phases of an Interacting Majorana Benalcazar–Bernevig–Hughes Model. <i>Condensed Matter</i> , 2022, 7, 26.	0.8	7
4	Quantum nonlocality in extended theories of gravity. <i>Physical Review D</i> , 2021, 103, .	1.6	7
5	Flavor-vacuum entanglement in boson mixing. <i>Physical Review A</i> , 2021, 103, .	1.0	7
6	Quantum gravitational decoherence from fluctuating minimal length and deformation parameter at the Planck scale. <i>Nature Communications</i> , 2021, 12, 4449.	5.8	55
7	Spontaneous Lorentz Violation from Infrared Gravity. <i>Symmetry</i> , 2021, 13, 1854.	1.1	4
8	Non-Gaussian swapping of entangled resources. <i>Quantum Information Processing</i> , 2019, 18, 1.	1.0	5
9	Measuring quantumness: from theory to observability in interferometric setups. <i>European Physical Journal D</i> , 2018, 72, 1.	0.6	7
10	Exact non-Markovian dynamics of Gaussian quantum channels: Finite-time and asymptotic regimes. <i>Physical Review A</i> , 2018, 98, .	1.0	5
11	Quantum gases and quantum coherence. <i>European Physical Journal: Special Topics</i> , 2017, 226, 2693-2696.	1.2	0
12	Geometric measures of quantum correlations: characterization, quantification, and comparison by distances and operations. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2016, 49, 235301.	0.7	46
13	Mutual information and spontaneous symmetry breaking. <i>Physical Review A</i> , 2016, 93, .	1.0	15
14	Global-to-local incompatibility, monogamy of entanglement, and ground-state dimerization: Theory and observability of quantum frustration in systems with competing interactions. <i>Physical Review B</i> , 2015, 92, .	1.1	10
15	Non-Markovianity of Gaussian Channels. <i>Physical Review Letters</i> , 2015, 115, 070401.	2.9	29
16	Flavor entanglement in neutrino oscillations in the wave packet description. <i>Europhysics Letters</i> , 2015, 112, 20007.	0.7	27
17	Simulating long-distance entanglement in quantum spin chains by superconducting flux qubits. <i>Physical Review A</i> , 2015, 91, .	1.0	12
18	Device-independent quantum reading and noise-assisted quantum transmitters. <i>New Journal of Physics</i> , 2015, 17, 013031.	1.2	18

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19	Stationary entanglement of photons and atoms in a high-finesse resonator. <i>Physical Review A</i> , 2014, 89, .	1.0	4
20	Adiabatic quantum simulation with a segmented ion trap: Application to long-distance entanglement in quantum spin systems. <i>Physical Review A</i> , 2014, 89, .	1.0	20
21	A field-theoretical approach to entanglement in neutrino mixing and oscillations. <i>Europhysics Letters</i> , 2014, 106, 30002.	0.7	36
22	Entanglement in a QFT Model of Neutrino Oscillations. <i>Advances in High Energy Physics</i> , 2014, 2014, 1-6.	0.5	11
23	Non-Markovian dynamics and steady-state entanglement of cavity arrays in finite-bandwidth squeezed reservoirs. <i>Physical Review A</i> , 2014, 89, .	1.0	17
24	Discord of response. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2014, 47, 365301.	0.7	21
25	Frustration, entanglement, and correlations in quantum many-body systems. <i>Physical Review A</i> , 2013, 88, .	1.0	36
26	Neutrino flavor entanglement. <i>Nuclear Physics, Section B, Proceedings Supplements</i> , 2013, 237-238, 320-322.	0.5	6
27	Entanglement amplification in the nonperturbative dynamics of modular quantum systems. <i>Physical Review A</i> , 2013, 88, .	1.0	2
28	Theory of warm ionized gases: Equation of state and kinetic Schottky anomaly. <i>Physical Review E</i> , 2013, 88, 042132.	0.8	7
29	Tunable non-Gaussian resources for continuous-variable quantum technologies. <i>Physical Review A</i> , 2013, 88, .	1.0	13
30	Quantifying nonclassicality: Global impact of local unitary evolutions. <i>Physical Review A</i> , 2013, 87, .	1.0	26
31	Entanglement Replication in Driven Dissipative Many-Body systems. <i>Physical Review Letters</i> , 2013, 110, 040503.	2.9	28
32	Surface entanglement in quantum spin networks. <i>Physical Review A</i> , 2013, 87, .	1.0	6
33	Universal aspects in the behavior of the entanglement spectrum in one dimension: Scaling transition at the factorization point and ordered entangled structures. <i>Physical Review B</i> , 2013, 88, .	1.1	36
34	Entanglement in Quantum Field Theory: particle mixing and oscillations. <i>Journal of Physics: Conference Series</i> , 2013, 442, 012070.	0.3	6
35	Microscopic theory of warm ionized gases: equation of state and kinetic Schottky anomaly. <i>Journal of Physics: Conference Series</i> , 2013, 442, 012064.	0.3	0
36	Atoms, Photons and Entanglement for Quantum Information Technologies. <i>Procedia Computer Science</i> , 2011, 7, 52-55.	1.2	2

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37	Localization of Bose-Einstein condensates in optical lattices. <i>Open Physics</i> , 2011, 9, .	0.8	1
38	Characterizing and Quantifying Frustration in Quantum Many-Body Systems. <i>Physical Review Letters</i> , 2011, 107, 260602.	2.9	46
39	Entanglement quantification by local unitary operations. <i>Physical Review A</i> , 2011, 84, .	1.0	26
40	Measurement of damping and temperature: Precision bounds in Gaussian dissipative channels. <i>Physical Review A</i> , 2011, 83, .	1.0	71
41	Modular Entanglement. <i>Physical Review Letters</i> , 2011, 106, 050501.	2.9	30
42	Geometric measures of multipartite entanglement in finite-size spin chains. <i>Physica Scripta</i> , 2010, T140, 014016.	1.2	5
43	Quantum localization and bound-state formation in Bose-Einstein condensates. <i>Physical Review A</i> , 2010, 82, .	1.0	17
44	Teleportation of squeezing: Optimization using non-Gaussian resources. <i>Physical Review A</i> , 2010, 82, .	1.0	38
45	Information geometry of Gaussian channels. <i>Physical Review A</i> , 2010, 81, .	1.0	41
46	Realistic continuous-variable quantum teleportation with non-Gaussian resources. <i>Physical Review A</i> , 2010, 81, .	1.0	69
47	Probing Quantum Frustrated Systems via Factorization of the Ground State. <i>Physical Review Letters</i> , 2010, 104, 207202.	2.9	48
48	Long-distance entanglement in many-body atomic and optical systems. <i>New Journal of Physics</i> , 2010, 12, 025019.	1.2	50
49	On entanglement in neutrino mixing and oscillations. <i>Journal of Physics: Conference Series</i> , 2010, 237, 012007.	0.3	10
50	Controllable Gaussian-Qubit Interface for Extremal Quantum State Engineering. <i>Physical Review Letters</i> , 2010, 104, 240501.	2.9	15
51	Optimal estimation of losses at the ultimate quantum limit with non-Gaussian states. <i>Physical Review A</i> , 2009, 79, .	1.0	137
52	Unconventional quantum phases in lattice bosonic mixtures. <i>European Physical Journal B</i> , 2009, 68, 427-433.	0.6	8
53	Separability and ground-state factorization in quantum spin systems. <i>Physical Review B</i> , 2009, 79, .	1.1	72
54	Long-distance entanglement and quantum teleportation in coupled-cavity arrays. <i>Physical Review A</i> , 2009, 80, .	1.0	39

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55	Entanglement in neutrino oscillations. Europhysics Letters, 2009, 85, 50002.	0.7	94
56	Multipartite entanglement in neutrino oscillations. Journal of Physics: Conference Series, 2009, 174, 012062.	0.3	1
57	Multipartite geometric entanglement in finite size XY model. Journal of Physics: Conference Series, 2009, 174, 012064.	0.3	3
58	Continuous variable quantum teleportation with sculptured and noisy non-Gaussian resources. European Physical Journal: Special Topics, 2008, 160, 115-126.	1.2	12
59	Multipartite entangled states in particle mixing. Physical Review D, 2008, 77, .	1.6	53
60	Hierarchies of geometric entanglement. Physical Review A, 2008, 77, .	1.0	86
61	Determination of ground-state properties in quantum spin systems by single-qubit unitary operations and entanglement excitation energies. Physical Review A, 2008, 77, .	1.0	15
62	Mixtures of Strongly Interacting Bosons in Optical Lattices. Physical Review Letters, 2008, 100, 240402.	2.9	48
63	Genuine multipartite entanglement of symmetric Gaussian states: Strong monogamy, unitary localization, scaling behavior, and molecular sharing structure. Physical Review A, 2008, 78, .	1.0	30
64	Theory of Ground State Factorization in Quantum Cooperative Systems. Physical Review Letters, 2008, 100, 197201.	2.9	85
65	Optical state engineering, quantum communication, and robustness of entanglement promiscuity in three-mode Gaussian states. New Journal of Physics, 2007, 9, 60-60.	1.2	23
66	Bipartite and Multipartite Entanglement of Gaussian States. , 2007, , 1-21.		4
67	Coexistence of unlimited bipartite and genuine multipartite entanglement: Promiscuous quantum correlations arising from discrete to continuous-variable systems. Physical Review A, 2007, 76, .	1.0	12
68	Monogamy Inequality for Distributed Gaussian Entanglement. Physical Review Letters, 2007, 98, 050503.	2.9	108
69	Entanglement in continuous-variable systems: recent advances and current perspectives. Journal of Physics A: Mathematical and Theoretical, 2007, 40, 7821-7880.	0.7	503
70	Continuous-variable quantum teleportation with non-Gaussian resources. Physical Review A, 2007, 76, .	1.0	156
71	Continuous-variable quantum information with three-mode Gaussian states: allotment, trade-off, teleportation, and telecloning. , 2007, , .		0
72	Geometric characterization of separability and entanglement in pure Gaussian states by single-mode unitary operations. Physical Review A, 2007, 76, .	1.0	7

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73	Strong Monogamy of Bipartite and Genuine Multipartite Entanglement: The Gaussian Case. Physical Review Letters, 2007, 99, 150501.	2.9	53
74	Long-distance entanglement and quantum teleportation in X - X spin chains. Physical Review A, 2007, 76, .	1.0	123
75	Entanglement in 2 - 2 and 3 - 3 systems by single-qubit and single-qutrit unitary. Physical Review A, 2007, 76, .	1.0	24
76	Multipartite entanglement in three-mode Gaussian states of continuous-variable systems: Quantification, sharing structure, and decoherence. Physical Review A, 2006, 73, .	1.0	172
77	Extended Bose Hubbard model of interacting bosonic atoms in optical lattices: From superfluidity to density waves. Physical Review A, 2006, 73, .	1.0	59
78	Light does matter. Nature Physics, 2006, 2, 803-804.	6.5	23
79	Student processes for a stochastic model of beam halos. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2006, 561, 237-243.	0.7	7
80	Multiphoton quantum optics and quantum state engineering. Physics Reports, 2006, 428, 53-168.	10.3	255
81	Engineering massive quantum memories by topologically time-modulated spin rings. Laser Physics, 2006, 16, 1411-1417.	0.6	9
82	Test of Inseparability Criteria for Squeezed Number States of the Radiation Field. Open Systems and Information Dynamics, 2006, 13, 383-392.	0.5	5
83	Continuous variable tangle, monogamy inequality, and entanglement sharing in Gaussian states of continuous variable systems. New Journal of Physics, 2006, 8, 15-15.	1.2	127
84	ENTANGLEMENT SHARING: FROM QUBITS TO GAUSSIAN STATES. International Journal of Quantum Information, 2006, 04, 383-393.	0.6	22
85	MASSIVE QUANTUM MEMORIES BY PERIODICALLY INVERTED DYNAMIC EVOLUTIONS. International Journal of Quantum Information, 2006, 04, 507-517.	0.6	5
86	Entanglement, Purity, and Information Entropies in Continuous Variable Systems. Open Systems and Information Dynamics, 2005, 12, 189-205.	0.5	29
87	Entanglement of two-mode Gaussian states: characterization and experimental production and manipulation. Journal of Optics B: Quantum and Semiclassical Optics, 2005, 7, S577-S587.	1.4	145
88	Quasideterministic generation of maximally entangled states of two mesoscopic atomic ensembles by adiabatic quantum feedback. Physical Review A, 2005, 72, .	1.0	5
89	Student distributions for halos in accelerator beams. Physical Review E, 2005, 72, 066502.	0.8	7
90	Equivalence between Entanglement and the Optimal Fidelity of Continuous Variable Teleportation. Physical Review Letters, 2005, 95, 150503.	2.9	92

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91	Storing quantum information in XXZ spin rings with periodically time-controlled interactions. <i>Journal of Optics B: Quantum and Semiclassical Optics</i> , 2005, 7, S337-S340.	1.4	6
92	Quantifying decoherence in continuous variable systems. <i>Journal of Optics B: Quantum and Semiclassical Optics</i> , 2005, 7, R19-R36.	1.4	123
93	Unitarily localizable entanglement of Gaussian states. <i>Physical Review A</i> , 2005, 71, .	1.0	104
94	Gaussian measures of entanglement versus negativities: Ordering of two-mode Gaussian states. <i>Physical Review A</i> , 2005, 72, .	1.0	148
95	Determination of Continuous Variable Entanglement by Purity Measurements. <i>Physical Review Letters</i> , 2004, 92, 087901.	2.9	118
96	High-Temperature Atomic Superfluidity in Lattice Bose-Fermi Mixtures. <i>Physical Review Letters</i> , 2004, 93, 090406.	2.9	65
97	Inhomogeneous Atomic Bose-Fermi Mixtures in Cubic Lattices. <i>Physical Review Letters</i> , 2004, 93, 190405.	2.9	50
98	Structure of multiphoton quantum optics. I. Canonical formalism and homodyne squeezed states. <i>Physical Review A</i> , 2004, 69, .	1.0	7
99	Entanglement and purity of two-mode Gaussian states in noisy channels. <i>Physical Review A</i> , 2004, 69, .	1.0	111
100	Quantification and Scaling of Multipartite Entanglement in Continuous Variable Systems. <i>Physical Review Letters</i> , 2004, 93, 220504.	2.9	80
101	Structure of multiphoton quantum optics. II. Bipartite systems, physical processes, and heterodyne squeezed states. <i>Physical Review A</i> , 2004, 69, .	1.0	5
102	Dynamics of entanglement between two atomic samples with spontaneous scattering. <i>Physical Review A</i> , 2004, 70, .	1.0	7
103	Influence of trapping potentials on the phase diagram of bosonic atoms in optical lattices. <i>Physical Review A</i> , 2004, 70, .	1.0	6
104	Minimum decoherence cat-like states in Gaussian noisy channels. <i>Journal of Optics B: Quantum and Semiclassical Optics</i> , 2004, 6, S591-S596.	1.4	46
105	DYNAMICAL CONTROL OF THE HALO IN PARTICLE BEAMS: A STOCHASTIC "HYDRODYNAMIC APPROACH. <i>International Journal of Modern Physics B</i> , 2004, 18, 607-616.	1.0	3
106	MULTIPHOTON SQUEEZED STATES BY CUBIC NONLINEAR CONTRIBUTION. <i>International Journal of Modern Physics B</i> , 2004, 18, 633-642.	1.0	2
107	MECHANISMS OF AGGREGATION OF PHYSICAL SYSTEMS: POSSIBLE UNIVERSAL LAWS. <i>International Journal of Modern Physics B</i> , 2004, 18, 541-548.	1.0	3
108	DECOHERENCE OF NUMBER STATES IN PHASE-SENSITIVE RESERVOIRS. <i>Modern Physics Letters B</i> , 2004, 18, 687-695.	1.0	6

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109	Extremal entanglement and mixedness in continuous variable systems. <i>Physical Review A</i> , 2004, 70, .	1.0	479
110	Symplectic invariants, entropic measures and correlations of Gaussian states. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2004, 37, L21-L28.	0.6	179
111	Theory of Quantum Gases and Quantum Coherence: The Levico BEC Workshop, 12â€“14 June 2003. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2004, 37, .	0.6	0
112	Characterizing entanglement with global and marginal entropic measures. <i>Physical Review A</i> , 2003, 68, .	1.0	19
113	Ground-state properties of trapped Bose-Fermi mixtures: Role of exchange correlation. <i>Physical Review A</i> , 2003, 67, .	1.0	28
114	Purity of Gaussian states: Measurement schemes and time evolution in noisy channels. <i>Physical Review A</i> , 2003, 68, .	1.0	122
115	Stochastic-hydrodynamic model of halo formation in charged particle beams. <i>Physical Review Special Topics: Accelerators and Beams</i> , 2003, 6, .	1.8	11
116	Mixtures of bosonic and fermionic atoms in optical lattices. <i>Physical Review A</i> , 2003, 68, .	1.0	160
117	Quantum field theory of dilute homogeneous Bose-Fermi mixtures at zero temperature: General formalism and beyond mean-field corrections. <i>Physical Review A</i> , 2002, 65, .	1.0	50
118	Exact theory of multiphoton processes and four-photon squeezed states via nonlinear canonical transformations. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2002, 35, L291-L297.	0.6	5
119	Critical temperature of Bose-Einstein condensation in trapped atomic Bose-Fermi mixtures. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2002, 35, L511-L519.	0.6	6
120	A phenomenological model explaining the observed scales of astrophysical and cosmological structures. <i>Europhysics Letters</i> , 2002, 58, 315-320.	0.7	4
121	NON-NEWTONIAN GRAVITY, FLUCTUATIVE HYPOTHESIS AND THE SIZES OF ASTROPHYSICAL STRUCTURES. <i>Modern Physics Letters A</i> , 2001, 16, 693-706.	0.5	21
122	Quadrature-dependent Bogoliubov transformations and multiphoton squeezed states. <i>Physical Review A</i> , 2001, 64, .	1.0	20
123	PHENOMENOLOGICAL SCALING LAWS RELATING THE OBSERVED GALACTIC DIMENSIONS TO THE MICROSCOPIC FUNDAMENTAL SCALES. <i>Modern Physics Letters A</i> , 2000, 15, 1063-1070.	0.5	8
124	Transition temperature of the weakly interacting Bose gas: perturbative solution of the crossover equations in the canonical ensemble. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2000, 33, L779-L786.	0.6	26
125	Stochastic collective dynamics of charged-particle beams in the stability regime. <i>Physical Review E</i> , 2000, 63, 016501.	0.8	16
126	Controlled quantum evolutions and transitions. <i>Journal of Physics A</i> , 1999, 32, 7489-7508.	1.6	10

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127	Thermodynamic identities and particle number fluctuations in weakly interacting Bose-Einstein condensates. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 1999, 32, L461-L467.	0.6	25
128	Inference of Planck action constant by a classical fluctuative postulate holding for stable microscopic and macroscopic dynamical systems. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1999, 271, 324-342.	1.2	9
129	Broadband detection of squeezed vacuum: A spectrum of quantum states. <i>Europhysics Letters</i> , 1998, 44, 192-197.	0.7	11
130	Semiclassical Aspects of Quantum Mechanics by Classical Fluctuations. <i>Modern Physics Letters B</i> , 1998, 12, 291-299.	1.0	4
131	Theory of controlled quantum dynamics. <i>Journal of Physics A</i> , 1997, 30, 4117-4132.	1.6	1
132	A stochastic approach to thermal fluctuations during a first order electroweak phase transition. <i>Astroparticle Physics</i> , 1996, 4, 293-308.	1.9	0
133	DYNAMICS OF GENERALIZED COHERENT STATES. <i>Modern Physics Letters B</i> , 1995, 09, 823-828.	1.0	1
134	Stochastic variational approach to minimum uncertainty states. <i>Journal of Physics A</i> , 1995, 28, 2953-2961.	1.6	7
135	DIFFUSION PROCESSES AND COHERENT STATES. <i>Modern Physics Letters B</i> , 1994, 08, 977-984.	1.0	6
136	A CLASS OF QUANTUM STATES WITH CLASSICAL-LIKE EVOLUTION. <i>Modern Physics Letters B</i> , 1994, 08, 1823-1831.	1.0	2
137	Classical and quantum dissipation in non-homogeneous environments. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1994, 211, 449-464.	1.2	7
138	Energy spectrum of anyons in a magnetic field. <i>Physical Review A</i> , 1993, 47, 3437-3440.	1.0	3
139	MULTI-ANYON SPECTRA AND WAVE FUNCTIONS IN THE CLUSTERING APPROXIMATION. <i>Modern Physics Letters A</i> , 1993, 08, 513-522.	0.5	3
140	A semi-classical approximation to the three-anyon spectrum. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1992, 161, 323-325.	0.9	9
141	Recursive integral equations with positive kernel for lattice calculations. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1991, 153, 257-262.	0.9	0