Giuseppe Falci

List of Publications by Year
in descending order

142 papers	5,315 citations	147801 31 h-index	82547 72 g-index
142 all docs	142 docs citations	142 times ranked	2957 citing authors

#	Article	IF	Citations
1	A tutorial on optimal control and reinforcement learning methods for quantum technologies. Physics Letters, Section A: General, Atomic and Solid State Physics, 2022, 434, 128054.	2.1	22
2	Low-frequency critical current noise in graphene Josephson junctions in the open-circuit gate voltage limit. European Physical Journal: Special Topics, 2021, 230, 821-825.	2.6	3
3	Probing ultrastrong lightâ€“matter coupling in open quantum systems. European Physical Journal: Special Topics, 2021, 230, 941-945.	2.6	4
4	Reinforcement learning-enhanced protocols for coherent population-transfer in three-level quantum systems. New Journal of Physics, 2021, 23, 093035.	2.9	14
5	Atoms in separated resonators can jointly absorb a single photon. Scientific Reports, 2020, 10, 21660.	3.3	6
6	1/f critical current noise in short ballistic graphene Josephson junctions. Communications Physics, 2020, 3, .	5.3	14
7	Ultrastrong coupling probed by Coherent Population Transfer. Scientific Reports, 2019, 9, 9249.	3.3	15
8	Graphene Josephson Junction Quantum Circuits for Noise Detection. Proceedings (mdpi), 2019, 12, .	0.2	4
9	Quantum Sensing 1/f Noise via Pulsed Control of a Two-Qubit Gate. Proceedings (mdpi), 2019, 12, 29.	0.2	1
10	Speedup of Adiabatic Multiqubit State-Transfer by Ultrastrong Coupling of Matter and Radiation. Proceedings (mdpi), 2019, 12, 35.	0.2	0
11	Quantum Information Science in Italy (IQIS 2018 Editorial). Proceedings (mdpi), 2019, 12, 1.	0.2	0
12	Charge carrier density noise in graphene: effect of localized/delocalized traps. Journal of Statistical Mechanics: Theory and Experiment, 2019, 2019, 094015.	2.3	8
13	Photon pair production by STIRAP in ultrastrongly coupled matter-radiation systems. European Physical Journal: Special Topics, 2019, 227, 2183-2188.	2.6	8
14	Tailoring Active Defect Centers During the Growth of Group IV Crystals. Proceedings (mdpi), 2019, 12, 32.	0.2	0
15	Coherent trapping in small quantum networks. Journal of Statistical Mechanics: Theory and Experiment, 2019, 2019, 124024.	2.3	3
16	Quantum Zeno and anti-Zeno effect on a two-qubit gate by dynamical decoupling. European Physical Journal: Special Topics, 2019, 227, 2189-2194.	2.6	4
17	Detector's quantum backaction effects on a mesoscopic conductor and fluctuationâ€dissipation relation. Fortschritte Der Physik, 2017, 65, 1600059.	4.4	0
18	Advances in quantum control of threeâ€level superconducting circuit architectures. Fortschritte Der Physik, 2017, 65, 1600077.	4.4	30

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19	Quantum Control in Qutrit Systems Using Hybrid Rabi-STIRAP Pulses. Photonics, 2016, 3, 62.	2.0	22
20	High-fidelity two-qubit gates via dynamical decoupling of local<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mn>1</mml:mn><mml:mo>/</mml:mo><mml:mi>f</mml:mi at the optimal point. Physical Review A, 2016, 94, .	2.5	2
21	Coherent manipulation of noise-protected superconducting artificial atoms in the Lambda scheme. Physical Review A, 2016, 93, .	2.5	35
22	Information transmission over an amplitude damping channel with an arbitrary degree of memory. Physical Review A, 2015, 92, .	2.5	14
23	Population transfer in a Lambda system induced by detunings. Physical Review B, 2015, 91, .	3.2	26
24	Experimental on-demand recovery of entanglement by local operations within non-Markovian dynamics. Scientific Reports, 2015, 5, 8575.	3.3	132
25	Dynamical decoupling of local transverse random telegraph noise in a two-qubit gate. Physica Scripta, 2015, T165, 014037.	2.5	2
26	Hidden entanglement, system-environment information flow and non-Markovianity. International Journal of Quantum Information, 2014, 12, 1461005.	1.1	39
27	The physics of quantum computation. International Journal of Quantum Information, 2014, 12, 1430003.	1.1	3
28	Dynamical decoupling of random telegraph noise in a two-qubit gate. International Journal of Quantum Information, 2014, 12, 1461008.	1.1	2
29	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mn mathvariant="bold-sans-serif">1</mml:mn><mml:mo>/</mml:mo><mml:mi mathvariant="sans-serif-bold-italic">f</mml:mi></mml:math>noise: Implications for solid-state quantum information. Reviews of Modern Physics, 2014, 86, 361-418.	45.6	409
30	Recovering entanglement by local operations. Annals of Physics, 2014, 350, 211-224.	2.8	105
31	Preserving entanglement and nonlocality in solid-state qubits by dynamical decoupling. Physical Review B, 2014, 90, .	3.2	93
32	Transient Dynamics and Asymptotic Populations in a Driven Metastable Quantum System. Acta Physica Polonica B, 2013, 44, 1185.	0.8	4
33	Hidden entanglement in the presence of random telegraph dephasing noise. Physica Scripta, 2013, T153, 014014.	2.5	28
34	Spin-echo entanglement protection from random telegraph noise. Physica Scripta, 2013, T153, 014043.	2.5	9
35	Classical and quantum capacities of a fully correlated amplitude damping channel. Physical Review A, 2013, 88, .	2.5	27
36	Design of a Lambda system for population transfer in superconducting nanocircuits. Physical Review B, 2013, 87, .	3.2	87

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37	Superconducting qubit manipulated by fast pulses: experimental observation of distinct decoherence regimes. New Journal of Physics, 2012, 14, 023031.	2.9	22
38	Title is missing!. Acta Physica Polonica B, 2012, 43, 1169.	0.8	15
39	Effects of low-frequency noise in driven coherent nanodevices. Physica Scripta, 2012, T151, 014020.	2.5	4
40	Purcell effect in a circuit-QED architecture implementation of a universal two-qubit gate. Physica Scripta, 2012, T151, 014048.	2.5	2
41	THE BISTABLE POTENTIAL: AN ARCHETYPE FOR CLASSICAL AND QUANTUM SYSTEMS. International Journal of Modern Physics B, 2012, 26, 1241006.	2.0	9
42	Entanglement dynamics in superconducting qubits affected by local bistable impurities. Physica Scripta, 2012, T147, 014019.	2.5	56
43	Transmission of classical and quantum information through a quantum memory channel with damping. European Physical Journal D, 2012, 66, 1.	1.3	13
44	Decoherence times of universal two-qubit gates in the presence of broad-band noise. New Journal of Physics, 2011, 13, 093037.	2.9	25
45	EFFECT OF LOW-FREQUENCY NOISE ON ADIABATIC PASSAGE IN A SUPERCONDUCTING NANOCIRCUIT. International Journal of Quantum Information, 2011, 09, 1-15.	1.1	8
46	DYNAMICS OF A QUANTUM PARTICLE IN ASYMMETRIC BISTABLE POTENTIAL WITH ENVIRONMENTAL NOISE. International Journal of Quantum Information, 2011, 09, 119-127.	1.1	10
47	HAMILTONIAN MODELS FOR QUANTUM MEMORY CHANNELS. International Journal of Quantum Information, 2011, 09, 625-635.	1.1	1
48	DECAY OF NONLOCALITY DUE TO ADIABATIC AND QUANTUM NOISE IN THE SOLID STATE. International Journal of Quantum Information, 2011, 09, 63-71.	1.1	4
49	Entanglement degradation in the solid state: Interplay of adiabatic and quantum noise. Physical Review A, 2010, 81, .	2.5	40
50	Relaxation processes in solid-state two-qubit gates. Physica E: Low-Dimensional Systems and Nanostructures, 2010, 42, 439-443.	2.7	4
51	Dynamics of Weyl wave-packets in a noisy environment. Physica E: Low-Dimensional Systems and Nanostructures, 2010, 42, 584-589.	2.7	1
52	Detection of finite-frequency photoassisted shot noise with a resonant circuit. Physical Review B, 2010, 81, .	3.2	14
53	Optimal tuning of solid-state quantum gates: A universal two-qubit gate. Physical Review B, 2010, 81, .	3.2	29
54	Dark count in single photon avalanche Si detectors. , 2010, , .		2

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55	Preliminary radiation hardness tests of single photon Si detectors. , 2010, , .		2
56	Enhancement of Transmission Rates in Quantum Memory Channels with Damping. Physical Review Letters, 2009, 103, 020502.	7.8	38
57	Advanced control with a Cooper-pair box: Stimulated Raman adiabatic passage and Fock-state generation in a nanomechanical resonator. Physical Review B, 2009, 79, .	3.2	31
58	Coupled qubits: effects of transverse slow noise. Physica Scripta, 2009, 80, 025803.	2.5	0
59	A semiclassical model for a memory dephasing channel. Physica Scripta, 2009, T135, 014052.	2.5	1
60	Broadband noise decoherence in solid-state complex architectures. Physica Scripta, 2009, T137, 014017.	2.5	9
61	Memory effects in quantum information transmission across a Hamiltonian dephasing channel. European Physical Journal: Special Topics, 2008, 160, 83-94.	2.6	2
62	Sensitivity to parameters of STIRAP in a Cooper Pair Box. European Physical Journal: Special Topics, 2008, 160, 259-268.	2.6	6
63	Coupled Josephson qubits: Characterization of low-frequency charge noise. European Physical Journal: Special Topics, 2008, 160, 291-300.	2.6	4
64	PROTECTED COMPUTATIONAL SUBSPACES OF COUPLED SUPERCONDUCTING QUBITS. International Journal of Quantum Information, 2008, 06, 645-650.	1.1	2
65	MEMORY EFFECTS IN A MARKOV CHAIN DEPHASING CHANNEL. International Journal of Quantum Information, 2008, 06, 651-657.	1.1	9
66	Effects of low-frequency noise cross-correlations in coupled superconducting qubits. New Journal of Physics, 2008, 10, 115006.	2.9	19
67	Characterization of coherent impurity effects in solid-state qubits. Physical Review B, 2008, 77, .	3.2	35
68	STIMULATED RAMAN ADIABATIC PASSAGE WITH A COOPER PAIR BOX. , 2008, , .		0
69	CHARACTERIZATION OF ADIABATIC NOISE IN CHARGE-BASED COHERENT NANODEVICES. , 2008, , .		0
70	Quantum capacity of dephasing channels with memory. New Journal of Physics, 2007, 9, 310-310.	2.9	70
71	Robustness of adiabatic passage through a quantum phase transition. New Journal of Physics, 2007, 9, 134-134.	2.9	50
72	Structured environments in solid state systems: Crossover from Gaussian to non-Gaussian behavior. Physica E: Low-Dimensional Systems and Nanostructures, 2007, 40, 198-205.	2.7	7

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73	Pure dephasing due to damped bistable quantum impurities. Chemical Physics, 2006, 322, 98-107.	1.9	6
74	Adiabatic passage with superconducting nanocircuits. Optics Communications, 2006, 264, 435-440.	2.1	52
75	Low-Frequency Noise Characterization in Charge-Based Coherent Nanodevices. Open Systems and Information Dynamics, 2006, 13, 323-332.	1.2	4
76	DECOHERENCE DUE TO TELEGRAPH AND 1/F NOISE IN JOSEPHSON QUBITS. , 2005, , .		2
77	INTERACTION OF JOSEPHSON QUBITS WITH STRONG QED CAVITY MODES: DYNAMICAL ENTANGLEMENT TRANSFER AND NAVIGATION. , 2005, , .		1
78	Quantum control of discrete noise in Josephson qubits. Physica E: Low-Dimensional Systems and Nanostructures, 2005, 29, 297-307.	2.7	7
79	Quantum-state transfer in imperfect artificial spin networks. Physical Review A, 2005, 71, .	2.5	56
80	Initial Decoherence in Solid State Qubits. Physical Review Letters, 2005, 94, 167002.	7.8	133
81	Dynamical suppression of telegraph and1â˘•fnoise due to quantum bistable fluctuators. Physical Review A, 2004, 70, .	2.5	69
82	Semiclassical Analysis of 1/fNoise in Josephson Qubits. , 2004, , 237-245.		0
83	Modulation of dephasing due to a spin-boson environment. Chemical Physics, 2004, 296, 325-332.	1.9	11
84	Dynamical entanglement transfer for quantum-information networks. Physical Review A, 2004, 70, .	2.5	66
85	Entanglement between two superconducting qubits via interaction with nonclassical radiation. Physical Review B, 2004, 69, .	3.2	74
86	Decoherence and 1/f noise in Josephson qubits. Physica E: Low-Dimensional Systems and Nanostructures, 2003, 18, 29-30.	2.7	12
87	Universal features in ensembles of small superconducting grains. Physica E: Low-Dimensional Systems and Nanostructures, 2003, 18, 31-32.	2.7	0
88	Josephson nanocircuit in the presence of linear quantum noise. Physica E: Low-Dimensional Systems and Nanostructures, 2003, 18, 39-40.	2.7	10
89	Thermodynamics in disordered metallic dots. Current Applied Physics, 2003, 3, 445-447.	2.4	0
90	Quantum gates and Berry phases in Josephson nanostructures. Fortschritte Der Physik, 2003, 51, 442-448.	4.4	1

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91	<title>Scaling, entanglement, and quantum phase transitions</title>. , 2003, , .		0
92	Interplay between pairing and exchange in small metallic dots. Physical Review B, 2003, 67, .	3.2	11
93	Communicating Josephson qubits. Physical Review B, 2003, 67, .	3.2	102
94	Scaling, Entanglement, and Quantum Phase Transitions. AIP Conference Proceedings, 2003, , .	0.4	0
95	Interplay Between the Pairing and Exchange Interactions in Small Metallic Disordered Grains. Journal of the Physical Society of Japan, 2003, 72, 169-170.	1.6	0
96	Background Charges Induced Stochastic Fluctuations in Josephson Qubits. Journal of the Physical Society of Japan, 2003, 72, 165-166.	1.6	0
97	INTERPLAY BETWEEN THE PAIRING AND EXCHANGE INTERACTIONS IN SMALL METALLIC DOTS. , 2003, , .		0
98	DECOHERENCE DUE TO BACKGROUND CHARGES IN JOSEPHSON DEVICES. , 2003, , .		0
99	Decoherence and1/fNoise in Josephson Qubits. Physical Review Letters, 2002, 88, 228304.	7.8	287
100	Mesoscopic fluctuations in superconducting dots at finite temperatures. Physical Review B, 2002, 65, .	3.2	16
101	1/f Noise in Josephson Qubits. , 2002, , 15-24.		0
102	Josephson Qubits For Quantum Computation. , 2002, , 265-274.		0
103	Scaling of entanglement close to a quantum phase transition. Nature, 2002, 416, 608-610.	27.8	1,577
104	Correlated tunneling into a superconductor in a multiprobe hybrid structure. Europhysics Letters, 2001, 54, 255-261.	2.0	204
105	Geometric quantum computation with Josephson qubits. Physica C: Superconductivity and Its Applications, 2001, 352, 110-112.	1.2	2
106	1/F Noise During Manipulation of Josephson Charge Qubits. , 2001, , 359-366.		1
107	The BCS model and the off-shell Bethe ansatz for vertex models. Journal of Physics A, 2001, 34, 6425-6434.	1.6	35
108	Superconducting dot in a magnetic field. AIP Conference Proceedings, 2000, , .	0.4	0

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109	Thermodynamic properties of ultrasmall superconducting grains. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 2000, 80, 883-888.	0.6	1
110	Detection of geometric phases in superconducting nanocircuits. Nature, 2000, 407, 355-358.	27.8	359
111	Thermodynamic and spectral properties of ultrasmall superconducting grains. Journal of Low Temperature Physics, 2000, 118, 355-364.	1.4	9
112	Decoherence and preparation effects in mesoscopic systems. AIP Conference Proceedings, 2000, , .	0.4	0
113	Thermodynamic properties of ultrasmall superconducting grains. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 2000, 80, 883-888.	0.6	1
114	Re-Entrant Spin Susceptibility of a Superconducting Grain. Physical Review Letters, 2000, 84, 550-553.	7.8	42
115	Title is missing!. , 1999, 12, 783-787.		0
116	Small Superconducting Grain in the Canonical Ensemble. Physical Review Letters, 1998, 80, 4542-4545.	7.8	130
117	A generalized model of non-thermal noise in the electromagnetic environment of small-capacitance tunnel junctions. Europhysics Letters, 1998, 42, 109-109.	2.0	0
118	A generalized model of non-thermal noise in the electromagnetic environment of small-capacitance tunnel junctions. Europhysics Letters, 1997, 38, 365-370.	2.0	4
119	Supersolid phase in fully frustrated Josephson-junction arrays. Physical Review B, 1997, 55, 1100-1109.	3.2	6
120	Unified Scaling Theory of the Electron Box for Arbitrary Tunneling Strength. Physical Review Letters, 1995, 74, 3257-3260.	7.8	75
121	Andreev Tunnelling into a One-Dimensional Josephson-Junction Array. Europhysics Letters, 1995, 30, 169-174.	2.0	9
122	Tunneling in the electron box in the nonperturbative regime. Physica B: Condensed Matter, 1994, 203, 409-416.	2.7	22
123	Kosterlitz-Thouless-Berezinskii transition in the one-dimensional quantum roughening model. Physical Review B, 1992, 45, 2779-2785.	3.2	0
124	Quantum Tunnelling in Small-Capacitance Josephson Junctions in a General Electromagnetic Environment. Europhysics Letters, 1991, 16, 109-114.	2.0	39
125	Zero temperature phase diagram of a small metallic junction. European Physical Journal B, 1991, 85, 427-433.	1.5	7
126	Quasiparticle and Cooper pair tenneling in small capacitance Josephson junctions. European Physical Journal B, 1991, 85, 451-458.	1.5	49

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127	An Effective Classical Model for Dissipative Josephson Junction Arrays. Europhysics Letters, 1991, 14, 145-150.	2.0	7
128	Single-electron tunneling in systems of small junctions coupled to an electromagnetic environment. Physical Review B, 1991, 44, 13089-13092.	3.2	35
129	Quasiparticle tunneling and quasiparticle-pair interference in granular superconductors. Physical Review B, 1991, 43, 13053-13059.	3.2	0
130	Phase transition in small metallic junctions with quasiparticle dissipation. Physical Review Letters, 1991, 67, 2203-2206.	7.8	6
131	Pair interference and the phase diagram of granular superconductors. Physica B: Condensed Matter, 1990, 165-166, 965-966.	2.7	0
132	Effects of quasi-particle dissipation in small metallic junctions. Physica B: Condensed Matter, 1990, 165-166, 975-976.	2.7	5
133	Coupled two-order-parameter approach to granular superconductors. Physical Review B, 1989, 39, 8984-8987.	3.2	2
134	Phase dependent renormalization in granular superconductors. Solid State Communications, 1989, 69, 255-258.	1.9	2
135	Dissipation and the Kosterlitz-Thouless-Berezinskii transition in granular superconductors. Solid State Communications, 1989, 71, 275-279.	1.9	10
136	High temperature superconductivity in ceruloplasmin. Physica C: Superconductivity and Its Applications, 1988, 153-155, 506-507.	1.2	2
137	Fluxâ€Flow Resistance, Vortex Depairing, and Temperature Dependence of the Ginzburgâ€Landau Parameter in Dirty Quasiâ€2D Superconductors. Physica Status Solidi (B): Basic Research, 1988, 146, K125.	1.5	0
138	Phase dependent renormalizatino in granular superconductors. Physica C: Superconductivity and Its Applications, 1988, 153-155, 723-724.	1.2	0
139	Coupled order parameters approach to phase transitions in granular superconductors. Physica C: Superconductivity and Its Applications, 1988, 153-155, 721-722.	1.2	0
140	Fluctuation effects in granular superconductors of intermediate paracoherent transition temperature. Physica B: Condensed Matter, 1988, 152, 257-260.	2.7	7
141	Decoherence Due to Discrete Noise in Josephson Qubits. Advances in Solid State Physics, 0, , 747-762.	0.8	25
142	Structure of the breakdown spot during progressive breakdown of ultra-thin gate oxides. , 0, , .		3