

Giuseppe Falci

List of Publications by Year in descending order

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142
papers

5,315
citations

147566

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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.	0.9	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.	1.2	3
3	Probing ultrastrong light-matter coupling in open quantum systems. European Physical Journal: Special Topics, 2021, 230, 941-945.	1.2	4
4	Reinforcement learning-enhanced protocols for coherent population-transfer in three-level quantum systems. New Journal of Physics, 2021, 23, 093035.	1.2	14
5	Atoms in separated resonators can jointly absorb a single photon. Scientific Reports, 2020, 10, 21660.	1.6	6
6	1/f critical current noise in short ballistic graphene Josephson junctions. Communications Physics, 2020, 3, .	2.0	14
7	Ultrastrong coupling probed by Coherent Population Transfer. Scientific Reports, 2019, 9, 9249.	1.6	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.	0.9	8
13	Photon pair production by STIRAP in ultrastrongly coupled matter-radiation systems. European Physical Journal: Special Topics, 2019, 227, 2183-2188.	1.2	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.	0.9	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.	1.2	4
17	Detector's quantum backaction effects on a mesoscopic conductor and fluctuation-dissipation relation. Fortschritte Der Physik, 2017, 65, 1600059.	1.5	0
18	Advances in quantum control of three-level superconducting circuit architectures. Fortschritte Der Physik, 2017, 65, 1600077.	1.5	30

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19	Quantum Control in Qutrit Systems Using Hybrid Rabi-STIRAP Pulses. <i>Photonics</i> , 2016, 3, 62.	0.9	22
20	High-fidelity two-qubit gates via dynamical decoupling of local \mathbb{Z}_2 symmetry at the optimal point. <i>Physical Review A</i> , 2016, 94, .	1.0	35
21	Coherent manipulation of noise-protected superconducting artificial atoms in the Lambda scheme. <i>Physical Review A</i> , 2016, 93, .	1.0	14
22	Information transmission over an amplitude damping channel with an arbitrary degree of memory. <i>Physical Review A</i> , 2015, 92, .	1.1	26
23	Population transfer in a Lambda system induced by detunings. <i>Physical Review B</i> , 2015, 91, .	1.6	132
24	Experimental on-demand recovery of entanglement by local operations within non-Markovian dynamics. <i>Scientific Reports</i> , 2015, 5, 8575.	1.2	2
25	Dynamical decoupling of local transverse random telegraph noise in a two-qubit gate. <i>Physica Scripta</i> , 2015, T165, 014037.	0.6	39
26	Hidden entanglement, system-environment information flow and non-Markovianity. <i>International Journal of Quantum Information</i> , 2014, 12, 1461005.	0.6	3
27	The physics of quantum computation. <i>International Journal of Quantum Information</i> , 2014, 12, 1430003.	0.6	2
28	Dynamical decoupling of random telegraph noise in a two-qubit gate. <i>International Journal of Quantum Information</i> , 2014, 12, 1461008.	16.4	409
29	\mathbb{Z}_2 symmetry breaking noise: Implications for solid-state quantum information. <i>Reviews of Modern Physics</i> , 2014, 86, 361-418.	1.0	105
30	Recovering entanglement by local operations. <i>Annals of Physics</i> , 2014, 350, 211-224.	1.1	93
31	Preserving entanglement and nonlocality in solid-state qubits by dynamical decoupling. <i>Physical Review B</i> , 2014, 90, .	0.3	4
32	Transient Dynamics and Asymptotic Populations in a Driven Metastable Quantum System. <i>Acta Physica Polonica B</i> , 2013, 44, 1185.	1.2	28
33	Hidden entanglement in the presence of random telegraph dephasing noise. <i>Physica Scripta</i> , 2013, T153, 014014.	1.2	9
34	Spin-echo entanglement protection from random telegraph noise. <i>Physica Scripta</i> , 2013, T153, 014043.	1.0	27
35	Classical and quantum capacities of a fully correlated amplitude damping channel. <i>Physical Review A</i> , 2013, 88, .	1.1	87
36	Design of a Lambda system for population transfer in superconducting nanocircuits. <i>Physical Review B</i> , 2013, 87, .		

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37	Superconducting qubit manipulated by fast pulses: experimental observation of distinct decoherence regimes. <i>New Journal of Physics</i> , 2012, 14, 023031.	1.2	22
38	Title is missing!. <i>Acta Physica Polonica B</i> , 2012, 43, 1169.	0.3	15
39	Effects of low-frequency noise in driven coherent nanodevices. <i>Physica Scripta</i> , 2012, T151, 014020.	1.2	4
40	Purcell effect in a circuit-QED architecture implementation of a universal two-qubit gate. <i>Physica Scripta</i> , 2012, T151, 014048.	1.2	2
41	THE BISTABLE POTENTIAL: AN ARCHETYPE FOR CLASSICAL AND QUANTUM SYSTEMS. <i>International Journal of Modern Physics B</i> , 2012, 26, 1241006.	1.0	9
42	Entanglement dynamics in superconducting qubits affected by local bistable impurities. <i>Physica Scripta</i> , 2012, T147, 014019.	1.2	56
43	Transmission of classical and quantum information through a quantum memory channel with damping. <i>European Physical Journal D</i> , 2012, 66, 1.	0.6	13
44	Decoherence times of universal two-qubit gates in the presence of broad-band noise. <i>New Journal of Physics</i> , 2011, 13, 093037.	1.2	25
45	EFFECT OF LOW-FREQUENCY NOISE ON ADIABATIC PASSAGE IN A SUPERCONDUCTING NANOCIRCUIT. <i>International Journal of Quantum Information</i> , 2011, 09, 1-15.	0.6	8
46	DYNAMICS OF A QUANTUM PARTICLE IN ASYMMETRIC BISTABLE POTENTIAL WITH ENVIRONMENTAL NOISE. <i>International Journal of Quantum Information</i> , 2011, 09, 119-127.	0.6	10
47	HAMILTONIAN MODELS FOR QUANTUM MEMORY CHANNELS. <i>International Journal of Quantum Information</i> , 2011, 09, 625-635.	0.6	1
48	DECAY OF NONLOCALITY DUE TO ADIABATIC AND QUANTUM NOISE IN THE SOLID STATE. <i>International Journal of Quantum Information</i> , 2011, 09, 63-71.	0.6	4
49	Entanglement degradation in the solid state: Interplay of adiabatic and quantum noise. <i>Physical Review A</i> , 2010, 81, .	1.0	40
50	Relaxation processes in solid-state two-qubit gates. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2010, 42, 439-443.	1.3	4
51	Dynamics of Weyl wave-packets in a noisy environment. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2010, 42, 584-589.	1.3	1
52	Detection of finite-frequency photoassisted shot noise with a resonant circuit. <i>Physical Review B</i> , 2010, 81, .	1.1	14
53	Optimal tuning of solid-state quantum gates: A universal two-qubit gate. <i>Physical Review B</i> , 2010, 81, .	1.1	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.	2.9	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, .	1.1	31
58	Coupled qubits: effects of transverse slow noise. Physica Scripta, 2009, 80, 025803.	1.2	0
59	A semiclassical model for a memory dephasing channel. Physica Scripta, 2009, T135, 014052.	1.2	1
60	Broadband noise decoherence in solid-state complex architectures. Physica Scripta, 2009, T137, 014017.	1.2	9
61	Memory effects in quantum information transmission across a Hamiltonian dephasing channel. European Physical Journal: Special Topics, 2008, 160, 83-94.	1.2	2
62	Sensitivity to parameters of STIRAP in a Cooper Pair Box. European Physical Journal: Special Topics, 2008, 160, 259-268.	1.2	6
63	Coupled Josephson qubits: Characterization of low-frequency charge noise. European Physical Journal: Special Topics, 2008, 160, 291-300.	1.2	4
64	PROTECTED COMPUTATIONAL SUBSPACES OF COUPLED SUPERCONDUCTING QUBITS. International Journal of Quantum Information, 2008, 06, 645-650.	0.6	2
65	MEMORY EFFECTS IN A MARKOV CHAIN DEPHASING CHANNEL. International Journal of Quantum Information, 2008, 06, 651-657.	0.6	9
66	Effects of low-frequency noise cross-correlations in coupled superconducting qubits. New Journal of Physics, 2008, 10, 115006.	1.2	19
67	Characterization of coherent impurity effects in solid-state qubits. Physical Review B, 2008, 77, .	1.1	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.	1.2	70
71	Robustness of adiabatic passage through a quantum phase transition. New Journal of Physics, 2007, 9, 134-134.	1.2	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.	1.3	7

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73	Pure dephasing due to damped bistable quantum impurities. <i>Chemical Physics</i> , 2006, 322, 98-107.	0.9	6
74	Adiabatic passage with superconducting nanocircuits. <i>Optics Communications</i> , 2006, 264, 435-440.	1.0	52
75	Low-Frequency Noise Characterization in Charge-Based Coherent Nanodevices. <i>Open Systems and Information Dynamics</i> , 2006, 13, 323-332.	0.5	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. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2005, 29, 297-307.	1.3	7
79	Quantum-state transfer in imperfect artificial spin networks. <i>Physical Review A</i> , 2005, 71, .	1.0	56
80	Initial Decoherence in Solid State Qubits. <i>Physical Review Letters</i> , 2005, 94, 167002.	2.9	133
81	Dynamical suppression of telegraph and $1/f$ noise due to quantum bistable fluctuators. <i>Physical Review A</i> , 2004, 70, .	1.0	69
82	Semiclassical Analysis of $1/f$ Noise in Josephson Qubits. , 2004, , 237-245.		0
83	Modulation of dephasing due to a spin-boson environment. <i>Chemical Physics</i> , 2004, 296, 325-332.	0.9	11
84	Dynamical entanglement transfer for quantum-information networks. <i>Physical Review A</i> , 2004, 70, .	1.0	66
85	Entanglement between two superconducting qubits via interaction with nonclassical radiation. <i>Physical Review B</i> , 2004, 69, .	1.1	74
86	Decoherence and $1/f$ noise in Josephson qubits. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2003, 18, 29-30.	1.3	12
87	Universal features in ensembles of small superconducting grains. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2003, 18, 31-32.	1.3	0
88	Josephson nanocircuit in the presence of linear quantum noise. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2003, 18, 39-40.	1.3	10
89	Thermodynamics in disordered metallic dots. <i>Current Applied Physics</i> , 2003, 3, 445-447.	1.1	0
90	Quantum gates and Berry phases in Josephson nanostructures. <i>Fortschritte Der Physik</i> , 2003, 51, 442-448.	1.5	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, .	1.1	11
93	Communicating Josephson qubits. Physical Review B, 2003, 67, .	1.1	102
94	Scaling, Entanglement, and Quantum Phase Transitions. AIP Conference Proceedings, 2003, , .	0.3	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.	0.7	0
96	Background Charges Induced Stochastic Fluctuations in Josephson Qubits. Journal of the Physical Society of Japan, 2003, 72, 165-166.	0.7	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 and $1/f$ Noise in Josephson Qubits. Physical Review Letters, 2002, 88, 228304.	2.9	287
100	Mesoscopic fluctuations in superconducting dots at finite temperatures. Physical Review B, 2002, 65, .	1.1	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.	13.7	1,577
104	Correlated tunneling into a superconductor in a multiprobe hybrid structure. Europhysics Letters, 2001, 54, 255-261.	0.7	204
105	Geometric quantum computation with Josephson qubits. Physica C: Superconductivity and Its Applications, 2001, 352, 110-112.	0.6	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, , .	0.3	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.	13.7	359
111	Thermodynamic and spectral properties of ultrasmall superconducting grains. Journal of Low Temperature Physics, 2000, 118, 355-364.	0.6	9
112	Decoherence and preparation effects in mesoscopic systems. AIP Conference Proceedings, 2000, , .	0.3	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.	2.9	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.	2.9	130
117	A generalized model of non-thermal noise in the electromagnetic environment of small-capacitance tunnel junctions. Europhysics Letters, 1998, 42, 109-109.	0.7	0
118	A generalized model of non-thermal noise in the electromagnetic environment of small-capacitance tunnel junctions. Europhysics Letters, 1997, 38, 365-370.	0.7	4
119	Supersolid phase in fully frustrated Josephson-junction arrays. Physical Review B, 1997, 55, 1100-1109.	1.1	6
120	Unified Scaling Theory of the Electron Box for Arbitrary Tunneling Strength. Physical Review Letters, 1995, 74, 3257-3260.	2.9	75
121	Andreev Tunnelling into a One-Dimensional Josephson-Junction Array. Europhysics Letters, 1995, 30, 169-174.	0.7	9
122	Tunneling in the electron box in the nonperturbative regime. Physica B: Condensed Matter, 1994, 203, 409-416.	1.3	22
123	Kosterlitz-Thouless-Berezinskii transition in the one-dimensional quantum roughening model. Physical Review B, 1992, 45, 2779-2785.	1.1	0
124	Quantum Tunnelling in Small-Capacitance Josephson Junctions in a General Electromagnetic Environment. Europhysics Letters, 1991, 16, 109-114.	0.7	39
125	Zero temperature phase diagram of a small metallic junction. European Physical Journal B, 1991, 85, 427-433.	0.6	7
126	Quasiparticle and Cooper pair tunneling in small capacitance Josephson junctions. European Physical Journal B, 1991, 85, 451-458.	0.6	49

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127	An Effective Classical Model for Dissipative Josephson Junction Arrays. Europhysics Letters, 1991, 14, 145-150.	0.7	7
128	Single-electron tunneling in systems of small junctions coupled to an electromagnetic environment. Physical Review B, 1991, 44, 13089-13092.	1.1	35
129	Quasiparticle tunneling and quasiparticle-pair interference in granular superconductors. Physical Review B, 1991, 43, 13053-13059.	1.1	0
130	Phase transition in small metallic junctions with quasiparticle dissipation. Physical Review Letters, 1991, 67, 2203-2206.	2.9	6
131	Pair interference and the phase diagram of granular superconductors. Physica B: Condensed Matter, 1990, 165-166, 965-966.	1.3	0
132	Effects of quasi-particle dissipation in small metallic junctions. Physica B: Condensed Matter, 1990, 165-166, 975-976.	1.3	5
133	Coupled two-order-parameter approach to granular superconductors. Physical Review B, 1989, 39, 8984-8987.	1.1	2
134	Phase dependent renormalization in granular superconductors. Solid State Communications, 1989, 69, 255-258.	0.9	2
135	Dissipation and the Kosterlitz-Thouless-Berezinskii transition in granular superconductors. Solid State Communications, 1989, 71, 275-279.	0.9	10
136	High temperature superconductivity in ceruloplasmin. Physica C: Superconductivity and Its Applications, 1988, 153-155, 506-507.	0.6	2
137	Flux-Flow Resistance, Vortex Depairing, and Temperature Dependence of the Ginzburg-Landau Parameter in Dirty Quasi-2D Superconductors. Physica Status Solidi (B): Basic Research, 1988, 146, K125.	0.7	0
138	Phase dependent renormalization in granular superconductors. Physica C: Superconductivity and Its Applications, 1988, 153-155, 723-724.	0.6	0
139	Coupled order parameters approach to phase transitions in granular superconductors. Physica C: Superconductivity and Its Applications, 1988, 153-155, 721-722.	0.6	0
140	Fluctuation effects in granular superconductors of intermediate paraconsistent transition temperature. Physica B: Condensed Matter, 1988, 152, 257-260.	1.3	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