Giuseppe Falci

List of Publications by Year
in descending order

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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	Scaling of entanglement close to a quantum phase transition. Nature, 2002, 416, 608-610.	27.8	1,577
2	<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
3	Detection of geometric phases in superconducting nanocircuits. Nature, 2000, 407, 355-358.	27.8	359
4	Decoherence and1/fNoise in Josephson Qubits. Physical Review Letters, 2002, 88, 228304.	7.8	287
5	Correlated tunneling into a superconductor in a multiprobe hybrid structure. Europhysics Letters, 2001, 54, 255-261.	2.0	204
6	Initial Decoherence in Solid State Qubits. Physical Review Letters, 2005, 94, 167002.	7.8	133
7	Experimental on-demand recovery of entanglement by local operations within non-Markovian dynamics. Scientific Reports, 2015, 5, 8575.	3.3	132
8	Small Superconducting Grain in the Canonical Ensemble. Physical Review Letters, 1998, 80, 4542-4545.	7.8	130
9	Recovering entanglement by local operations. Annals of Physics, 2014, 350, 211-224.	2.8	105
10	Communicating Josephson qubits. Physical Review B, 2003, 67, .	3.2	102
11	Preserving entanglement and nonlocality in solid-state qubits by dynamical decoupling. Physical Review B, 2014, 90, .	3.2	93
12	Design of a Lambda system for population transfer in superconducting nanocircuits. Physical Review B, 2013, 87, .	3.2	87
13	Unified Scaling Theory of the Electron Box for Arbitrary Tunneling Strength. Physical Review Letters, 1995, 74, 3257-3260.	7.8	75
14	Entanglement between two superconducting qubits via interaction with nonclassical radiation. Physical Review B, 2004, 69, .	3.2	74
15	Quantum capacity of dephasing channels with memory. New Journal of Physics, 2007, 9, 310-310.	2.9	70
16	Dynamical suppression of telegraph and1âˆ•fnoise due to quantum bistable fluctuators. Physical Review A, 2004, 70, .	2.5	69
17	Dynamical entanglement transfer for quantum-information networks. Physical Review A, 2004, 70, .	2.5	66
18	Quantum-state transfer in imperfect artificial spin networks. Physical Review A, 2005, 71, .	2.5	56

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19	Entanglement dynamics in superconducting qubits affected by local bistable impurities. Physica Scripta, 2012, T147, 014019.	2.5	56
20	Adiabatic passage with superconducting nanocircuits. Optics Communications, 2006, 264, 435-440.	2.1	52
21	Robustness of adiabatic passage through a quantum phase transition. New Journal of Physics, 2007, 9, 134-134.	2.9	50
22	Quasiparticle and Cooper pair tenneling in small capacitance Josephson junctions. European Physical Journal B, 1991, 85, 451-458.	1.5	49
23	Re-Entrant Spin Susceptibility of a Superconducting Grain. Physical Review Letters, 2000, 84, 550-553.	7.8	42
24	Entanglement degradation in the solid state: Interplay of adiabatic and quantum noise. Physical Review A, 2010, 81, .	2.5	40
25	Quantum Tunnelling in Small-Capacitance Josephson Junctions in a General Electromagnetic Environment. Europhysics Letters, 1991, 16, 109-114.	2.0	39
26	Hidden entanglement, system-environment information flow and non-Markovianity. International Journal of Quantum Information, 2014, 12, 1461005.	1.1	39
27	Enhancement of Transmission Rates in Quantum Memory Channels with Damping. Physical Review Letters, 2009, 103, 020502.	7.8	38
28	Single-electron tunneling in systems of small junctions coupled to an electromagnetic environment. Physical Review B, 1991, 44, 13089-13092.	3.2	35
29	The BCS model and the off-shell Bethe ansatz for vertex models. Journal of Physics A, 2001, 34, 6425-6434.	1.6	35
30	Characterization of coherent impurity effects in solid-state qubits. Physical Review B, 2008, 77, .	3.2	35
31	Coherent manipulation of noise-protected superconducting artificial atoms in the Lambda scheme. Physical Review A, 2016, 93, .	2.5	35
32	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
33	Advances in quantum control of threeâ€level superconducting circuit architectures. Fortschritte Der Physik, 2017, 65, 1600077.	4.4	30
34	Optimal tuning of solid-state quantum gates: A universal two-qubit gate. Physical Review B, 2010, 81, .	3.2	29
35	Hidden entanglement in the presence of random telegraph dephasing noise. Physica Scripta, 2013, T153, 014014.	2.5	28
36	Classical and quantum capacities of a fully correlated amplitude damping channel. Physical Review A, 2013, 88, .	2.5	27

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37	Population transfer in a Lambda system induced by detunings. Physical Review B, 2015, 91, .	3.2	26
38	Decoherence Due to Discrete Noise in Josephson Qubits. Advances in Solid State Physics, 0, , 747-762.	0.8	25
39	Decoherence times of universal two-qubit gates in the presence of broad-band noise. New Journal of Physics, 2011, 13, 093037.	2.9	25
40	Tunneling in the electron box in the nonperturbative regime. Physica B: Condensed Matter, 1994, 203, 409-416.	2.7	22
41	Superconducting qubit manipulated by fast pulses: experimental observation of distinct decoherence regimes. New Journal of Physics, 2012, 14, 023031.	2.9	22
42	Quantum Control in Qutrit Systems Using Hybrid Rabi-STIRAP Pulses. Photonics, 2016, 3, 62.	2.0	22
43	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
44	Effects of low-frequency noise cross-correlations in coupled superconducting qubits. New Journal of Physics, 2008, 10, 115006.	2.9	19
45	Mesoscopic fluctuations in superconducting dots at finite temperatures. Physical Review B, 2002, 65, .	3.2	16
46	Title is missing!. Acta Physica Polonica B, 2012, 43, 1169.	0.8	15
47	Ultrastrong coupling probed by Coherent Population Transfer. Scientific Reports, 2019, 9, 9249.	3.3	15
48	Detection of finite-frequency photoassisted shot noise with a resonant circuit. Physical Review B, 2010, 81, .	3.2	14
49	Information transmission over an amplitude damping channel with an arbitrary degree of memory. Physical Review A, 2015, 92, .	2.5	14
50	1/f critical current noise in short ballistic graphene Josephson junctions. Communications Physics, 2020, 3, .	5.3	14
51	Reinforcement learning-enhanced protocols for coherent population-transfer in three-level quantum systems. New Journal of Physics, 2021, 23, 093035.	2.9	14
52	Transmission of classical and quantum information through a quantum memory channel with damping. European Physical Journal D, 2012, 66, 1.	1.3	13
53	Decoherence and 1/f noise in Josephson qubits. Physica E: Low-Dimensional Systems and Nanostructures, 2003, 18, 29-30.	2.7	12
54	Interplay between pairing and exchange in small metallic dots. Physical Review B, 2003, 67, .	3.2	11

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55	Modulation of dephasing due to a spin-boson environment. Chemical Physics, 2004, 296, 325-332.	1.9	11
56	Dissipation and the Kosterlitz-Thouless-Berezinskii transition in granular superconductors. Solid State Communications, 1989, 71, 275-279.	1.9	10
57	Josephson nanocircuit in the presence of linear quantum noise. Physica E: Low-Dimensional Systems and Nanostructures, 2003, 18, 39-40.	2.7	10
58	DYNAMICS OF A QUANTUM PARTICLE IN ASYMMETRIC BISTABLE POTENTIAL WITH ENVIRONMENTAL NOISE. International Journal of Quantum Information, 2011, 09, 119-127.	1.1	10
59	Andreev Tunnelling into a One-Dimensional Josephson-Junction Array. Europhysics Letters, 1995, 30, 169-174.	2.0	9
60	Thermodynamic and spectral properties of ultrasmall superconducting grains. Journal of Low Temperature Physics, 2000, 118, 355-364.	1.4	9
61	MEMORY EFFECTS IN A MARKOV CHAIN DEPHASING CHANNEL. International Journal of Quantum Information, 2008, 06, 651-657.	1.1	9
62	Broadband noise decoherence in solid-state complex architectures. Physica Scripta, 2009, T137, 014017.	2.5	9
63	THE BISTABLE POTENTIAL: AN ARCHETYPE FOR CLASSICAL AND QUANTUM SYSTEMS. International Journal of Modern Physics B, 2012, 26, 1241006.	2.0	9
64	Spin-echo entanglement protection from random telegraph noise. Physica Scripta, 2013, T153, 014043.	2.5	9
65	EFFECT OF LOW-FREQUENCY NOISE ON ADIABATIC PASSAGE IN A SUPERCONDUCTING NANOCIRCUIT. International Journal of Quantum Information, 2011, 09, 1-15.	1.1	8
66	Charge carrier density noise in graphene: effect of localized/delocalized traps. Journal of Statistical Mechanics: Theory and Experiment, 2019, 2019, 094015.	2.3	8
67	Photon pair production by STIRAP in ultrastrongly coupled matter-radiation systems. European Physical Journal: Special Topics, 2019, 227, 2183-2188.	2.6	8
68	Fluctuation effects in granular superconductors of intermediate paracoherent transition temperature. Physica B: Condensed Matter, 1988, 152, 257-260.	2.7	7
69	Zero temperature phase diagram of a small metallic junction. European Physical Journal B, 1991, 85, 427-433.	1.5	7
70	An Effective Classical Model for Dissipative Josephson Junction Arrays. Europhysics Letters, 1991, 14, 145-150.	2.0	7
71	Quantum control of discrete noise in Josephson qubits. Physica E: Low-Dimensional Systems and Nanostructures, 2005, 29, 297-307.	2.7	7
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	Phase transition in small metallic junctions with quasiparticle dissipation. Physical Review Letters, 1991, 67, 2203-2206.	7.8	6
74	Supersolid phase in fully frustrated Josephson-junction arrays. Physical Review B, 1997, 55, 1100-1109.	3.2	6
75	Pure dephasing due to damped bistable quantum impurities. Chemical Physics, 2006, 322, 98-107.	1.9	6
76	Sensitivity to parameters of STIRAP in a Cooper Pair Box. European Physical Journal: Special Topics, 2008, 160, 259-268.	2.6	6
77	Atoms in separated resonators can jointly absorb a single photon. Scientific Reports, 2020, 10, 21660.	3.3	6
78	Effects of quasi-particle dissipation in small metallic junctions. Physica B: Condensed Matter, 1990, 165-166, 975-976.	2.7	5
79	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
80	Low-Frequency Noise Characterization in Charge-Based Coherent Nanodevices. Open Systems and Information Dynamics, 2006, 13, 323-332.	1.2	4
81	Coupled Josephson qubits: Characterization of low-frequency charge noise. European Physical Journal: Special Topics, 2008, 160, 291-300.	2.6	4
82	Relaxation processes in solid-state two-qubit gates. Physica E: Low-Dimensional Systems and Nanostructures, 2010, 42, 439-443.	2.7	4
83	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
84	Effects of low-frequency noise in driven coherent nanodevices. Physica Scripta, 2012, T151, 014020.	2.5	4
85	Transient Dynamics and Asymptotic Populations in a Driven Metastable Quantum System. Acta Physica Polonica B, 2013, 44, 1185.	0.8	4
86	Graphene Josephson Junction Quantum Circuits for Noise Detection. Proceedings (mdpi), 2019, 12, .	0.2	4
87	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
88	Probing ultrastrong lightâ€“matter coupling in open quantum systems. European Physical Journal: Special Topics, 2021, 230, 941-945.	2.6	4
89	Structure of the breakdown spot during progressive breakdown of ultra-thin gate oxides. , 0, , .		3
90	The physics of quantum computation. International Journal of Quantum Information, 2014, 12, 1430003.	1.1	3

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91	Coherent trapping in small quantum networks. Journal of Statistical Mechanics: Theory and Experiment, 2019, 2019, 124024.	2.3	3
92	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
93	High temperature superconductivity in ceruloplasmin. Physica C: Superconductivity and Its Applications, 1988, 153-155, 506-507.	1.2	2
94	Coupled two-order-parameter approach to granular superconductors. Physical Review B, 1989, 39, 8984-8987.	3.2	2
95	Phase dependent renormalization in granular superconductors. Solid State Communications, 1989, 69, 255-258.	1.9	2
96	Geometric quantum computation with Josephson qubits. Physica C: Superconductivity and Its Applications, 2001, 352, 110-112.	1.2	2
97	DECOHERENCE DUE TO TELEGRAPH AND 1/F NOISE IN JOSEPHSON QUBITS. , 2005, , .		2
98	Memory effects in quantum information transmission across a Hamiltonian dephasing channel. European Physical Journal: Special Topics, 2008, 160, 83-94.	2.6	2
99	PROTECTED COMPUTATIONAL SUBSPACES OF COUPLED SUPERCONDUCTING QUBITS. International Journal of Quantum Information, 2008, 06, 645-650.	1.1	2
100	Dark count in single photon avalanche Si detectors. , 2010, , .		2
101	Preliminary radiation hardness tests of single photon Si detectors. , 2010, , .		2
102	Purcell effect in a circuit-QED architecture implementation of a universal two-qubit gate. Physica Scripta, 2012, T151, 014048.	2.5	2
103	Dynamical decoupling of random telegraph noise in a two-qubit gate. International Journal of Quantum Information, 2014, 12, 1461008.	1.1	2
104	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, .	2.6	2
105	Dynamical decoupling of local transverse random telegraph noise in a two-qubit gate. Physica Scripta, 2015, T165, 014037.	2.5	2
106	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
107	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
108	1/F Noise During Manipulation of Josephson Charge Qubits. , 2001, , 359-366.		1

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109	Quantum gates and Berry phases in Josephson nanostructures. Fortschritte Der Physik, 2003, 51, 442-448.	4.4	1
110	INTERACTION OF JOSEPHSON QUBITS WITH STRONG QED CAVITY MODES: DYNAMICAL ENTANGLEMENT TRANSFER AND NAVIGATION. , 2005, , .		1
111	A semiclassical model for a memory dephasing channel. Physica Scripta, 2009, T135, 014052.	2.5	1
112	Dynamics of Weyl wave-packets in a noisy environment. Physica E: Low-Dimensional Systems and Nanostructures, 2010, 42, 584-589.	2.7	1
113	HAMILTONIAN MODELS FOR QUANTUM MEMORY CHANNELS. International Journal of Quantum Information, 2011, 09, 625-635.	1.1	1
114	Quantum Sensing 1/f Noise via Pulsed Control of a Two-Qubit Gate. Proceedings (mdpi), 2019, 12, 29.	0.2	1
115	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
116	Phase dependent renormalizatino in granular superconductors. Physica C: Superconductivity and Its Applications, 1988, 153-155, 723-724.	1.2	0
117	Coupled order parameters approach to phase transitions in granular superconductors. Physica C: Superconductivity and Its Applications, 1988, 153-155, 721-722.	1.2	0
118	Pair interference and the phase diagram of granular superconductors. Physica B: Condensed Matter, 1990, 165-166, 965-966.	2.7	0
119	Quasiparticle tunneling and quasiparticle-pair interference in granular superconductors. Physical Review B, 1991, 43, 13053-13059.	3.2	0
120	Kosterlitz-Thouless-Berezinskii transition in the one-dimensional quantum roughening model. Physical Review B, 1992, 45, 2779-2785.	3.2	0
121	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
122	Title is missing!. , 1999, 12, 783-787.		0
123	Superconducting dot in a magnetic field. AIP Conference Proceedings, 2000, , .	0.4	0
124	Decoherence and preparation effects in mesoscopic systems. AIP Conference Proceedings, 2000, , .	0.4	0
125	1/f Noise in Josephson Qubits. , 2002, , 15-24.		0
126	Josephson Qubits For Quantum Computation. , 2002, , 265-274.		0

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127	Universal features in ensembles of small superconducting grains. Physica E: Low-Dimensional Systems and Nanostructures, 2003, 18, 31-32.	2.7	0
128	Thermodynamics in disordered metallic dots. Current Applied Physics, 2003, 3, 445-447.	2.4	0
129	<title>Scaling, entanglement, and quantum phase transitions</title>. , 2003, , .		0
130	Scaling, Entanglement, and Quantum Phase Transitions. AIP Conference Proceedings, 2003, , .	0.4	0
131	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
132	Semiclassical Analysis of 1/fNoise in Josephson Qubits. , 2004, , 237-245.		0
133	Coupled qubits: effects of transverse slow noise. Physica Scripta, 2009, 80, 025803.	2.5	0
134	Detector's quantum backaction effects on a mesoscopic conductor and fluctuationâ€dissipation relation. Fortschritte Der Physik, 2017, 65, 1600059.	4.4	0
135	Speedup of Adiabatic Multiqubit State-Transfer by Ultrastrong Coupling of Matter and Radiation. Proceedings (mdpi), 2019, 12, 35.	0.2	0
136	Quantum Information Science in Italy (IQIS 2018 Editorial). Proceedings (mdpi), 2019, 12, 1.	0.2	0
137	Tailoring Active Defect Centers During the Growth of Group IV Crystals. Proceedings (mdpi), 2019, 12, 32.	0.2	0
138	Background Charges Induced Stochastic Fluctuations in Josephson Qubits. Journal of the Physical Society of Japan, 2003, 72, 165-166.	1.6	0
139	INTERPLAY BETWEEN THE PAIRING AND EXCHANGE INTERACTIONS IN SMALL METALLIC DOTS. , 2003, , .		0
140	DECOHERENCE DUE TO BACKGROUND CHARGES IN JOSEPHSON DEVICES. , 2003, , .		0
141	STIMULATED RAMAN ADIABATIC PASSAGE WITH A COOPER PAIR BOX. , 2008, , .		0
142	CHARACTERIZATION OF ADIABATIC NOISE IN CHARGE-BASED COHERENT NANODEVICES. , 2008, , .		0