Gershon Kurizki

List of Publications by Year
in descending order

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112 papers	4,500 citations	109321 35 h-index	106344 65 g-index
114 all docs	114 docs citations	114 times ranked	3032 citing authors

#	Article	IF	Citations
1	Quantum technologies with hybrid systems. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 3866-3873.	7.1	568
2	Long-range interactions and entanglement of slow single-photon pulses. Physical Review A, 2005, 72, .	2.5	193
3	Quantum engine efficiency bound beyond the second law of thermodynamics. Nature Communications, 2018, 9, 165.	12.8	174
4	Thermodynamic control by frequent quantum measurements. Nature, 2008, 452, 724-727.	27.8	169
5	Optimal Dynamical Decoherence Control of a Qubit. Physical Review Letters, 2008, 101, 010403.	7.8	155
6	Phase-coherent control of photocurrent directionality in semiconductors. Physical Review B, 1989, 39, 3435-3437.	3.2	152
7	Thermodynamics of Quantum Systems Under Dynamical Control. Advances in Atomic, Molecular and Optical Physics, 2015, , 329-407.	2.3	136
8	Reversible state transfer between superconducting qubits and atomic ensembles. Physical Review A, 2009, 79, .	2.5	128
9	On the operation of machines powered by quantum non-thermal baths. New Journal of Physics, 2016, 18, 083012.	2.9	113
10	Self-Induced Transparency in Bragg Reflectors: Gap Solitons near Absorption Resonances. Physical Review Letters, 1995, 74, 5020-5023.	7.8	104
11	Nonradiative interaction and entanglement between distant atoms. Physical Review A, 2013, 87, .	2.5	104
12	Universal dynamical decoherence control of noisy single- and multi-qubit systems. Journal of Physics B: Atomic, Molecular and Optical Physics, 2007, 40, S75-S93.	1.5	97
13	Two-atom resonant radiative coupling in photonic band structures. Physical Review A, 1990, 42, 2915-2924.	2.5	92
14	Bath-Optimized Minimal-Energy Protection of Quantum Operations from Decoherence. Physical Review Letters, 2010, 104, 040401.	7.8	90
15	Strongly interacting photons in hollow-core waveguides. Physical Review A, 2011, 83, .	2.5	82
16	Standing and Moving Gap Solitons in Resonantly Absorbing Gratings. Physical Review Letters, 1998, 81, 3647-3650.	7.8	76
17	Multiatom Quantum Coherences in Micromasers as Fuel for Thermal and Nonthermal Machines. Entropy, 2016, 18, 244.	2.2	76
18	Direct measurement of the systemâ€“environment coupling as a tool for understanding decoherence and dynamical decoupling. Journal of Physics B: Atomic, Molecular and Optical Physics, 2011, 44, 154006.	1.5	75

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19	Tachyonlike Excitations in Inverted Two-Level Media. Physical Review Letters, 1996, 77, 1254-1257.	7.8	72
20	Deterministic quantum logic with photons via optically induced photonic band gaps. Physical Review A, 2005, 71, .	2.5	69
21	Zeno and Anti-Zeno Polarization Control of Spin Ensembles by Induced Dephasing. Physical Review Letters, 2010, 105, 160401.	7.8	63
22	Cooperative many-body enhancement of quantum thermal machine power. New Journal of Physics, 2018, 20, 113038.	2.9	57
23	Fabrication of photonic crystals with functional defects by one-step holographic lithography. Optics Express, 2008, 16, 12899.	3.4	53
24	Highly nonlocal optical nonlinearities in atoms trapped near a waveguide. Optica, 2016, 3, 725.	9.3	51
25	Scalable Solid-State Quantum Processor Using Subradiant Two-Atom States. Physical Review Letters, 2002, 89, 207902.	7.8	50
26	Maximizing Information on the Environment by Dynamically Controlled Qubit Probes. Physical Review Applied, 2016, 5, .	3.8	50
27	Spatial Thirring-type solitons via electromagnetically induced transparency. Optics Letters, 2005, 30, 3374.	3.3	49
28	Master Equation and Control of an Open Quantum System with Leakage. Physical Review Letters, 2009, 102, 080405.	7.8	49
29	Performance limits of multilevel and multipartite quantum heat machines. Physical Review E, 2015, 92, 042123.	2.1	45
30	Power enhancement of heat engines via correlated thermalization in a three-level â€œworking fluidâ€• Scientific Reports, 2015, 5, 14413.	3.3	43
31	Dark and bright solitons in resonantly absorbing gratings. Physical Review E, 1999, 60, 6137-6149.	2.1	42
32	Optical solitons in periodic media with resonant and off-resonant nonlinearities. Progress in Optics, 2001, 42, 93-146.	0.6	41
33	Optimized dynamical control of state transfer through noisy spin chains. New Journal of Physics, 2014, 16, 065021.	2.9	40
34	Cooling down quantum bits on ultrashort time scales. New Journal of Physics, 2009, 11, 123025.	2.9	38
35	Two-level masers as heat-to-work converters. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 9941-9944.	7.1	38
36	Collectively enhanced thermalization via multiqubit collisions. Physical Review E, 2019, 99, 042145.	2.1	37

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37	Quantum optical two-atom thermal diode. Physical Review E, 2019, 99, 042121.	2.1	36
38	Einstein-Podolsky-Rosen Correlations of Ultracold Atomic Gases. Physical Review Letters, 2011, 106, 120404.	7.8	35
39	Creating Nonclassical States of Bose-Einstein Condensates by Dephasing Collisions. Physical Review Letters, 2011, 107, 010404.	7.8	35
40	Temperature Control in Dissipative Cavities by Entangled Dimers. Journal of Physical Chemistry C, 2019, 123, 4035-4043.	3.1	35
41	Universal Classical Mechanism of Free-Electron Lasing without Inversion. Physical Review Letters, 1995, 75, 4602-4605.	7.8	34
42	Giant vacuum forces via transmission lines. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 10485-10490.	7.1	31
43	Enhanced precision bound of low-temperature quantum thermometry via dynamical control. Communications Physics, 2019, 2, .	5.3	30
44	Theory of cooperative fluorescence from products of reactions or collisions: Identical neutral atomic fragments. Physical Review A, 1987, 36, 90-104.	2.5	29
45	Control of multiatom entanglement in a cavity. Physical Review A, 2007, 75, .	2.5	28
46	Lasing without inversion in Cherenkov free-electron lasers. Optics Communications, 1996, 123, 363-371.	2.1	27
47	Translational Entanglement via Collisions: How Much Quantum Information is Obtainable?. Physical Review Letters, 2005, 94, 160503.	7.8	27
48	Anti-Zeno quantum advantage in fast-driven heat machines. Communications Physics, 2020, 3, .	5.3	27
49	Optical â€œMultiexcitonsâ€• Quantum Gap Solitons in Nonlinear Bragg Reflectors. Physical Review Letters, 1995, 75, 3430-3433.	7.8	25
50	Universal dephasing control during quantum computation. Physical Review A, 2007, 76, .	2.5	25
51	From Zeno to anti-Zeno regime: Decoherence-control dependence on the quantum statistics of the bath. Physical Review A, 2011, 83, .	2.5	25
52	Quantum Sensing of Noisy and Complex Systems under Dynamical Control. Technologies, 2017, 5, 1.	5.1	25
53	Are quantum thermodynamic machines better than their classical counterparts?. European Physical Journal: Special Topics, 2019, 227, 2043-2051.	2.6	24
54	Minimal quantum heat manager boosted by bath spectral filtering. Physical Review Research, 2020, 2, .	3.6	24

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55	Dynamic control and probing of many-body decoherence in double-well Bose-Einstein condensates. Physical Review A, 2009, 80, .	2.5	23
56	Controlling quantum information processing in hybrid systems on chips. Quantum Information Processing, 2011, 10, 1037-1060.	2.2	23
57	Quantum interference and radiative coupling in two-atom single-photon emission. Physical Review A, 1985, 32, 2560-2563.	2.5	22
58	Task-optimized control of open quantum systems. Physical Review A, 2012, 85, .	2.5	21
59	Generation of Macroscopic Superpositions of Quantum States by Linear Coupling to a Bath. Physical Review Letters, 2011, 106, 010404.	7.8	20
60	Free-electron laser without inversion via transverse momentum discrimination. Physical Review E, 1996, 54, 6780-6787.	2.1	19
61	Proposal for Translational Entanglement of Dipole-Dipole Interacting Atoms in Optical Lattices. Physical Review Letters, 2003, 90, 250404.	7.8	19
62	Dispersion forces inside metallic waveguides. Physical Review A, 2013, 87, .	2.5	19
63	Quantized refrigerator for an atomic cloud. Quantum - the Open Journal for Quantum Science, 0, 3, 155.	0.0	19
64	Shift-driven modulations of spin-echo signals. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 5958-5961.	7.1	18
65	Optimizing inhomogeneous spin ensembles for quantum memory. Physical Review A, 2012, 86, .	2.5	18
66	Theory of one-dimensional quantum gap solitons. Physical Review A, 1996, 54, 3576-3591.	2.5	17
67	Numerical Experiments on Free-Electron Lasers Without Inversion. Physical Review Letters, 2003, 90, 214802.	7.8	16
68	Controlling Spin-Spin Network Dynamics by Repeated Projective Measurements. Physical Review Letters, 2012, 108, 140403.	7.8	15
69	Free-Electron Laser without Inversion: Gain Optimization and Implementation Scheme. Physical Review Letters, 2000, 85, 4510-4513.	7.8	14
70	Scalability of decoherence control in entangled systems. Physical Review A, 2011, 83, .	2.5	14
71	Engineering a thermal squeezed reservoir by energy-level modulation. Physical Review A, 2013, 87, .	2.5	13
72	Nonlinear theory of laser-induced dipolar interactions in arbitrary geometry. Physical Review A, 2014, 89, .	2.5	13

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73	Thermal baths as quantum resources: more friends than foes?. Physica Scripta, 2015, 90, 128002.	2.5	13
74	Criticality of environmental information obtainable by dynamically controlled quantum probes. Physical Review A, 2016, 94, .	2.5	12
75	Quantum Zeno and Anti-Zeno Probes of Noise Correlations in Photon Polarization. Physical Review Letters, 2022, 129, .	7.8	12
76	Open-loop stochastic control of quantum coherence. Journal of Physics B: Atomic, Molecular and Optical Physics, 2007, 40, S61-S73.	1.5	11
77	Quantum features of resonance fluorescence as probes of two-atom dynamical correlations. Physical Review A, 1991, 43, 2599-2602.	2.5	10
78	Dynamical protection of quantum computation from decoherence in laser-driven cold-ion and cold-atom systems. New Journal of Physics, 2008, 10, 045005.	2.9	10
79	Self-induced transparency and giant nonlinearity in doped photonic crystals. Journal of the Optical Society of America B: Optical Physics, 2002, 19, 2066.	2.1	8
80	Non-additivity in laser-illuminated many-atom systems. Optics Letters, 2014, 39, 3674.	3.3	8
81	Spin-bath polarization via disentanglement. New Journal of Physics, 2020, 22, 083035.	2.9	8
82	Two-dimensional solitons in periodically modulated double-well potentials. Journal of Physics B: Atomic, Molecular and Optical Physics, 2010, 43, 205304.	1.5	7
83	Threshold characteristics of free electron lasers without inversion. Laser Physics Letters, 2014, 11, 125001.	1.4	7
84	Work Generation from Thermal Noise by Quantum Phase-Sensitive Observation. Physical Review Letters, 2021, 127, 040602.	7.8	7
85	Cooperative fluorescence in nonadiabatic dissociation of alkali diatoms. Physical Review A, 1988, 38, 6433-6436.	2.5	6
86	Backward self-induced transparency in metamaterials. Physical Review A, 2009, 80, .	2.5	6
87	Precision Limits of Tissue Microstructure Characterization by Magnetic Resonance Imaging. Physical Review Applied, 2020, 14, .	3.8	6
88	Optimizing lightwave transmission through a nano-tip. AIP Advances, 2011, 1, 022130.	1.3	5
89	Solitons supported by intensity-dependent dispersion. Optics Letters, 2020, 45, 1471.	3.3	5
90	Trapping-state restoration in the randomly driven Jaynes-Cummings model by conditional measurements. Physical Review A, 1999, 59, 714-717.	2.5	4

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91	Dynamical control of nonlinear symmetry breaking under decoherence. Physical Review A, 2010, 82, .	2.5	4
92	Quantum particle localization by frequent coherent monitoring. Physical Review A, 2013, 87, .	2.5	4
93	Nonlinear dynamics of negatively refracted light in a resonantly absorbing Bragg reflector. Optics Letters, 2007, 32, 1117.	3.3	3
94	Generation of a self-pulsed picosecond solitary wave train from a periodically amplifying Bragg structure. Physical Review A, 2008, 78, .	2.5	3
95	Non-Markovian control of qubit thermodynamics by frequent quantum measurements. Physica E: Low-Dimensional Systems and Nanostructures, 2010, 42, 477-483.	2.7	3
96	Stabilization of Deterministically Chaotic Systems by Interference and Quantum Measurements: The Ikeda Map Case. Physical Review Letters, 1998, 80, 5730-5733.	7.8	2
97	Squeezing in a dipolar Boseâ€"Einstein condensed gas. Journal of Modern Optics, 2003, 50, 2655-2666.	1.3	2
98	Universal Dynamical Control of Open Quantum Systems. , 2013, 2013, 1-51.		2
99	From Coherent to Incoherent Dynamical Control of Open Quantum Systems. Advances in Chemical Physics, 0, , 137-218.	0.3	2
100	Broadband optical gain via interference in the free electron laser: Principles and proposed realizations. Physical Review E, 2001, 64, 026501.	2.1	1
101	POSITION AND MOMENTUM ENTANGLEMENT OF DIPOLEâ€"DIPOLE INTERACTING ATOMS IN OPTICAL LATTICES: THE EINSTEINâ€"PODOLSKYâ€"ROSEN PARADOX ON A LATTICE. International Journal of Quantum Information, 2004, 02, 305-321.	1.1	1
102	ZENO HEATING AND ANTI-ZENO COOLING BY FREQUENT QUANTUM MEASUREMENTS. International Journal of Quantum Information, 2009, 07, 49-62.	1.1	1
103	Unitary and non-unitary manipulations of qubit-bath entanglement: non-Markov qubit cooling. Quantum Information Processing, 2009, 8, 607-617.	2.2	1
104	Conditions of Perfect Imaging in Negative Refraction Materials with Gain. Advances in OptoElectronics, 2012, 2012, 1-5.	0.6	1
105	Quantum Lamarckism: observation, control and decoherence. Physica Scripta, 2018, 93, 124003.	2.5	1
106	THEORY OF RAMAN AMPLIFICATION IN MICROSPHERES. Advanced Series in Applied Physics, 2010, , 137-150.	0.0	1
107	Does Decoherence Select the Pointer Basis of a Quantum Meter?. Entropy, 2022, 24, 106.	2.2	1
108	Spatial Thirring-type solitons via electromagnetically induced transparency. , 2006, , .		0

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109	TRANSLATIONAL ENTANGLEMENT BY COLLISIONS AND HALF-COLLISIONS. International Journal of Modern Physics B, 2006, 20, 1648-1660.	2.0	0
110	Why and how should we control decoherence?â€. Journal of Modern Optics, 2008, 55, 3389-3402.	1.3	0
111	Quantum-Zeno Control of Collisional Entanglement in a Bose-Josephson Junction. , 2009, , .		0
112	QUANTUM AND NONLINEAR OPTICS WITH FEW PHOTONS :NEW PERSPECTIVES IN SOLIDS AND GASES. , 2006, , .		0