Hsi-Sheng Goan

List of Publications by Year
in descending order

79	1,711	304368 22	315357 38
papers	citations	h-index	g-index

80	80	80	1052
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Continuous quantum measurement of two coupled quantum dots using a point contact: A quantum trajectory approach. Physical Review B, 2001, 63, .	1.1	146
2	Variational Quantum Circuits for Deep Reinforcement Learning. IEEE Access, 2020, 8, 141007-141024.	2.6	134
3	Non-Markovian entanglement dynamics of quantum continuous variable systems in thermal environments. Physical Review A, 2007, 76, .	1.0	115
4	Dynamics of a mesoscopic charge quantum bit under continuous quantum measurement. Physical Review B, 2001, 64, .	1.1	109
5	Non-Markovian reduced dynamics and entanglement evolution of two coupled spins in a quantum spin environment. Physical Review B, 2007, 75, .	1.1	90
6	High-fidelity measurement and quantum feedback control in circuit QED. Physical Review A, 2005, 72, .	1.0	52
7	Quantum coherence in ultrastrong optomechanics. Physical Review A, 2015, 91, .	1.0	52
8	Optimal control for non-Markovian open quantum systems. Physical Review A, 2012, 85, .	1.0	50
9	Non-Markovian finite-temperature two-time correlation functions of system operators of a pure-dephasing model. Physical Review A, 2010, 82, .	1.0	37
10	Time-dependent transport of electrons through a photon cavity. Physical Review B, 2012, 85, .	1.1	37
11	Non-Markovian finite-temperature two-time correlation functions of system operators: Beyond the quantum regression theorem. Journal of Chemical Physics, 2011, 134, 124112.	1.2	36
12	Stepwise introduction of model complexity in a generalized master equation approach to timeâ€dependent transport. Fortschritte Der Physik, 2013, 61, 305-316.	1.5	29
13	Anharmonic effects on a phonon-number measurement of a quantum-mesoscopic-mechanical oscillator. Physical Review A, 2004, 70, .	1.0	28
14	Quantum noise in the electromechanical shuttle: Quantum master equation treatment. Physical Review B, 2006, 74, .	1.1	27
15	Decoherence-free subspace and disentanglement dynamics for two qubits in a common non-Markovian squeezed reservoir. Physical Review A, 2010, 82, .	1.0	27
16	Optimal control of fast and high-fidelity quantum gates with electron and nuclear spins of a nitrogen-vacancy center in diamond. Physical Review A, 2015, 91, .	1.0	27
17	Fast nonadiabatic two-qubit gates for the Kane quantum computer. Physical Review A, 2003, 68, .	1.0	26
18	Realistic simulations of single-spin nondemolition measurement by magnetic resonance force microscopy. Physical Review A, 2003, 68, .	1.0	25

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19	Influence of an external magnetic field on the decoherence of a central spin coupled to an antiferromagnetic environment. New Journal of Physics, 2007, 9, 219-219.	1.2	25
20	Nonclassical thermal-state superpositions: Analytical evolution law and decoherence behavior. Optics Communications, 2018, 411, 15-20.	1.0	24
21	Optimal control for fast and high-fidelity quantum gates in coupled superconducting flux qubits. Physical Review A, 2014, 90, .	1.0	23
22	Generation and stabilization of a three-qubit entangled<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>W</mml:mi></mml:math>state in circuit QED via quantum feedback control. Physical Review A, 2013, 88, .	1.0	22
23	Single-nitrogen-vacancy-center quantum memory for a superconducting flux qubit mediated by a ferromagnet. Physical Review A, 2018, 97, .	1.0	22
24	Variational quantum reinforcement learning via evolutionary optimization. Machine Learning: Science and Technology, 2022, 3, 015025.	2.4	22
25	Quantum magneto-electrodynamics of electrons embedded in a photon cavity. New Journal of Physics, 2012, 14, 013036.	1.2	21
26	Effects of initial system-environment correlations on open-quantum-system dynamics and state preparation. Physical Review A, 2016, 93, .	1.0	21
27	Single-spin measurement and decoherence in magnetic-resonance force microscopy. Physical Review B, 2003, 67, .	1.1	20
28	Spin-detection in a quantum electromechanical shuttle system. New Journal of Physics, 2006, 8, 63-63.	1.2	20
29	Unconventional geometric quantum computation in a two-mode cavity. Physical Review A, 2007, 76, .	1.0	20
30	Optimal control of quantum gates in an exactly solvable non-Markovian open quantum bit system. Physical Review A, 2014, 89, .	1.0	20
31	Robust quantum gates for stochastic time-varying noise. Physical Review A, 2017, 95, .	1.0	20
32	Charge transport in a quantum electromechanical system. Physical Review B, 2004, 70, .	1.1	19
33	Efficient determination of the Markovian time-evolution towards a steady-state of a complex open quantum system. Computer Physics Communications, 2017, 220, 81-90.	3.0	19
34	Current correlations for the transport of interacting electrons through parallel quantum dots in a photon cavity. Physics Letters, Section A: General, Atomic and Solid State Physics, 2018, 382, 1672-1678.	0.9	19
35	Monte Carlo method for a quantum measurement process by a single-electron transistor. Physical Review B, 2004, 70, .	1.1	17
36	Quantum Hall Effect in Quasi-One-Dimensional Conductors: The Roles of Moving FISDW, Finite Temperature, and Edge States. Journal De Physique, I, 1996, 6, 1917-1937.	1.2	17

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37	Molecular orbital calculations of two-electron states for P-donor solid-state spin qubits. Physical Review B, 2006, 73, .	1.1	16
38	Optimal control of the silicon-based donor-electron-spin quantum computing. Physical Review A, 2009, 79, .	1.0	15
39	Non-Markovian dynamics of a nanomechanical resonator measured by a quantum point contact. Physical Review B, 2011, 83, .	1.1	15
40	High-fidelity and robust two-qubit gates for quantum-dot spin qubits in silicon. Physical Review A, 2019, 99, .	1.0	15
41	Edge and bulk electron states in a quasi-one-dimensional metal in a magnetic field: The semi-infinite Wannier-Stark ladder. Physical Review B, 1998, 58, 8002-8008.	1.1	14
42	Nonperturbative approach to circuit quantum electrodynamics. Physical Review E, 2012, 86, 046701.	0.8	14
43	Nanomechanical-resonator-assisted induced transparency in a Cooper-pair box system. New Journal of Physics, 2008, 10, 095016.	1.2	13
44	Bias-modulated dynamics of a strongly driven two-level system. Physical Review A, 2016, 93, .	1.0	13
45	Quantum Zeno and anti-Zeno effects in open quantum systems. Physical Review A, 2017, 96, .	1.0	13
46	Gates for the Kane quantum computer in the presence of dephasing. Physical Review A, 2004, 70, .	1.0	12
47	Regimes of radiative and nonradiative transitions in transport through an electronic system in a photon cavity reaching a steady state. Annalen Der Physik, 2017, 529, 1600177.	0.9	12
48	Influence of magnetic-field-induced spin-density-wave motion and finite temperature on the quantum Hall effect in quasi-one-dimensional conductors: A quantum field theory. Physical Review B, 1998, 58, 10648-10664.	1.1	11
49	Voltage control of exchange coupling in phosphorus doped silicon. Journal of Physics Condensed Matter, 2004, 16, 5697-5704.	0.7	11
50	From insulator to quantum Hall liquid at low magnetic fields. Physical Review B, 2008, 78, .	1.1	11
51	Geometric phase of a central spin coupled to an antiferromagnetic environment. Physical Review A, 2010, 81, .	1.0	11
52	Electroluminescence Caused by the Transport of Interacting Electrons through Parallel Quantum Dots in a Photon Cavity. Annalen Der Physik, 2018, 530, 1700334.	0.9	11
53	Non-Markovianity, information backflow, and system-environment correlation for open-quantum-system processes. Physical Review A, 2019, 100, .	1.0	11
54	Time-dependent current into and through multilevel parallel quantum dots in a photon cavity. Physical Review B, 2017, 95, .	1.1	10

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55	Qubit-efficient encoding scheme for quantum simulations of electronic structure. Physical Review Research, 2022, 4, .	1.3	10
56	The effects of J-gate potential and interfaces on donor exchange coupling in the Kane quantum computer architecture. Journal of Physics Condensed Matter, 2004, 16, 1011-1023.	0.7	9
57	Dynamics of a driven spin coupled to an antiferromagnetic spin bath. New Journal of Physics, 2011, 13, 023018.	1.2	7
58	Comment on â€œGrover search with pairs of trapped ionsâ€• Physical Review A, 2004, 69, .	1.0	5
59	Utilization of the superconducting transition for characterizing low-quality-factor superconducting resonators. Applied Physics Letters, 2019, 115, 022601.	1.5	5
60	SILICON-BASED NUCLEAR SPIN QUANTUM COMPUTER. International Journal of Quantum Information, 2005, 03, 27-40.	0.6	4
61	Comment on â€œA special attack on the multiparty quantum secret sharing of secure direct communication using single photonsâ€• Optics Communications, 2010, 283, 3202-3203.	1.0	4
62	Accurate and Efficient Quantum Computations of Molecular Properties Using Daubechies Wavelet Molecular Orbitals: A Benchmark Study against Experimental Data. PRX Quantum, 2022, 3, .	3.5	4
63	Conditional counting statistics of electrons tunneling through quantum dot systems measured by a quantum point contact. Physical Review B, 2017, 96, .	1.1	3
64	Temperature evolution of the quantum hall effect in quasi-one-dimensional organic conductors. Synthetic Metals, 1997, 85, 1609-1612.	2.1	2
65	Single-spin measurement by magnetic resonance force microscopy: effects of measurement device, thermal noise, and spin relaxation. , 2004, , .		2
66	REALISTIC SIMULATIONS OF SINGLE-SPIN MEASUREMENT VIA MAGNETIC RESONANCE FORCE MICROSCOPY. International Journal of Quantum Information, 2005, 03, 1-9.	0.6	2
67	Gradient ascent pulse engineering approach to CNOT gates in donor electron spin quantum computing. , 2008, , .		2
68	SILICON-BASED NUCLEAR SPIN QUANTUM COMPUTER. , 2005, , .		1
69	Entanglement control by common heat bath. , 2008, , .		1
70	Quantum interference in the time-of-flight distribution. Journal of Physics A: Mathematical and Theoretical, 2009, 42, 385303.	0.7	1
71	Gaussian approximation and single-spin measurement in magnetic resonance force microscopy with spin noise. Physical Review A, 2010, 82, .	1.0	1
72	Symmetric excitation and de-excitation of a cavity QED system. European Physical Journal B, 2013, 86, 1.	0.6	1

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73	Full-polaron master equation approach to dynamical steady states of a driven two-level system beyond the weak system-environment coupling. Physical Review B, 2020, 102, .	1.1	1
74	Quantum electro-mechanical systems (QEMS). , 2004, , .		0
75	Conditional statistics of electron transport in interacting mesoscopic devices. , 2008, , .		0
76	Quantum Spin Baths Induced Transition of Decoherence and Entanglement. , 2008, , .		0
77	Vernier-like super resolution with guided correlated photon pairs. Optics Express, 2016, 24, 300.	1.7	0
78	Low Attenuation Dichroic Sub-Reflector For Wide Incident Angles For Ka/Ku Band Satellite Antenna Systems: An ECA Analysis. , 2020, , .		0
79	REALISTIC SIMULATIONS OF SINGLE-SPIN MEASUREMENT VIA MAGNETIC RESONANCE FORCE MICROSCOPY. , 2005, , .		0