

Hsi-Sheng Goan

List of Publications by Year in descending order

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79
papers

1,711
citations

304368

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315357

38
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80
all docs

80
docs citations

80
times ranked

1052
citing authors

#	ARTICLE	IF	CITATIONS
1	Variational quantum reinforcement learning via evolutionary optimization. Machine Learning: Science and Technology, 2022, 3, 015025.	2.4	22
2	Qubit-efficient encoding scheme for quantum simulations of electronic structure. Physical Review Research, 2022, 4, .	1.3	10
3	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
4	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
5	Variational Quantum Circuits for Deep Reinforcement Learning. IEEE Access, 2020, 8, 141007-141024.	2.6	134
6	Low Attenuation Dichroic Sub-Reflector For Wide Incident Angles For Ka/Ku Band Satellite Antenna Systems: An ECA Analysis. , 2020, , .		0
7	Non-Markovianity, information backflow, and system-environment correlation for open-quantum-system processes. Physical Review A, 2019, 100, .	1.0	11
8	Utilization of the superconducting transition for characterizing low-quality-factor superconducting resonators. Applied Physics Letters, 2019, 115, 022601.	1.5	5
9	High-fidelity and robust two-qubit gates for quantum-dot spin qubits in silicon. Physical Review A, 2019, 99, .	1.0	15
10	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
11	Nonclassical thermal-state superpositions: Analytical evolution law and decoherence behavior. Optics Communications, 2018, 411, 15-20.	1.0	24
12	Single-nitrogen-vacancy-center quantum memory for a superconducting flux qubit mediated by a ferromagnet. Physical Review A, 2018, 97, .	1.0	22
13	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
14	Quantum Zeno and anti-Zeno effects in open quantum systems. Physical Review A, 2017, 96, .	1.0	13
15	Time-dependent current into and through multilevel parallel quantum dots in a photon cavity. Physical Review B, 2017, 95, .	1.1	10
16	Conditional counting statistics of electrons tunneling through quantum dot systems measured by a quantum point contact. Physical Review B, 2017, 96, .	1.1	3
17	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
18	Robust quantum gates for stochastic time-varying noise. Physical Review A, 2017, 95, .	1.0	20

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19	Regimes of radiative and nonradiative transitions in transport through an electronic system in a photon cavity reaching a steady state. <i>Annalen Der Physik</i> , 2017, 529, 1600177.	0.9	12
20	Vernier-like super resolution with guided correlated photon pairs. <i>Optics Express</i> , 2016, 24, 300.	1.7	0
21	Effects of initial system-environment correlations on open-quantum-system dynamics and state preparation. <i>Physical Review A</i> , 2016, 93, .	1.0	21
22	Bias-modulated dynamics of a strongly driven two-level system. <i>Physical Review A</i> , 2016, 93, .	1.0	13
23	Optimal control of fast and high-fidelity quantum gates with electron and nuclear spins of a nitrogen-vacancy center in diamond. <i>Physical Review A</i> , 2015, 91, .	1.0	27
24	Quantum coherence in ultrastrong optomechanics. <i>Physical Review A</i> , 2015, 91, .	1.0	52
25	Optimal control for fast and high-fidelity quantum gates in coupled superconducting flux qubits. <i>Physical Review A</i> , 2014, 90, .	1.0	23
26	Optimal control of quantum gates in an exactly solvable non-Markovian open quantum bit system. <i>Physical Review A</i> , 2014, 89, .	1.0	20
27	Stepwise introduction of model complexity in a generalized master equation approach to time-dependent transport. <i>Fortschritte Der Physik</i> , 2013, 61, 305-316.	1.5	29
28	Symmetric excitation and de-excitation of a cavity QED system. <i>European Physical Journal B</i> , 2013, 86, 1.	0.6	1
29	Generation and stabilization of a three-qubit entangled W state in circuit QED via quantum feedback control. <i>Physical Review A</i> , 2013, 88, .	1.0	22
30	Optimal control for non-Markovian open quantum systems. <i>Physical Review A</i> , 2012, 85, .	1.0	50
31	Nonperturbative approach to circuit quantum electrodynamics. <i>Physical Review E</i> , 2012, 86, 046701.	0.8	14
32	Quantum magneto-electrodynamics of electrons embedded in a photon cavity. <i>New Journal of Physics</i> , 2012, 14, 013036.	1.2	21
33	Time-dependent transport of electrons through a photon cavity. <i>Physical Review B</i> , 2012, 85, .	1.1	37
34	Non-Markovian dynamics of a nanomechanical resonator measured by a quantum point contact. <i>Physical Review B</i> , 2011, 83, .	1.1	15
35	Non-Markovian finite-temperature two-time correlation functions of system operators: Beyond the quantum regression theorem. <i>Journal of Chemical Physics</i> , 2011, 134, 124112.	1.2	36
36	Dynamics of a driven spin coupled to an antiferromagnetic spin bath. <i>New Journal of Physics</i> , 2011, 13, 023018.	1.2	7

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37	Comment on "A special attack on the multiparty quantum secret sharing of secure direct communication using single photons". Optics Communications, 2010, 283, 3202-3203.	1.0	4
38	Gaussian approximation and single-spin measurement in magnetic resonance force microscopy with spin noise. Physical Review A, 2010, 82, .	1.0	1
39	Non-Markovian finite-temperature two-time correlation functions of system operators of a pure-dephasing model. Physical Review A, 2010, 82, .	1.0	37
40	Geometric phase of a central spin coupled to an antiferromagnetic environment. Physical Review A, 2010, 81, .	1.0	11
41	Decoherence-free subspace and disentanglement dynamics for two qubits in a common non-Markovian squeezed reservoir. Physical Review A, 2010, 82, .	1.0	27
42	Optimal control of the silicon-based donor-electron-spin quantum computing. Physical Review A, 2009, 79, .	1.0	15
43	Quantum interference in the time-of-flight distribution. Journal of Physics A: Mathematical and Theoretical, 2009, 42, 385303.	0.7	1
44	Conditional statistics of electron transport in interacting mesoscopic devices. , 2008, , .		0
45	Quantum Spin Baths Induced Transition of Decoherence and Entanglement. , 2008, , .		0
46	Gradient ascent pulse engineering approach to CNOT gates in donor electron spin quantum computing. , 2008, , .		2
47	Entanglement control by common heat bath. , 2008, , .		1
48	Nanomechanical-resonator-assisted induced transparency in a Cooper-pair box system. New Journal of Physics, 2008, 10, 095016.	1.2	13
49	From insulator to quantum Hall liquid at low magnetic fields. Physical Review B, 2008, 78, .	1.1	11
50	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
51	Unconventional geometric quantum computation in a two-mode cavity. Physical Review A, 2007, 76, .	1.0	20
52	Non-Markovian reduced dynamics and entanglement evolution of two coupled spins in a quantum spin environment. Physical Review B, 2007, 75, .	1.1	90
53	Non-Markovian entanglement dynamics of quantum continuous variable systems in thermal environments. Physical Review A, 2007, 76, .	1.0	115
54	Spin-detection in a quantum electromechanical shuttle system. New Journal of Physics, 2006, 8, 63-63.	1.2	20

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55	Quantum noise in the electromechanical shuttle: Quantum master equation treatment. Physical Review B, 2006, 74, .	1.1	27
56	Molecular orbital calculations of two-electron states for P-donor solid-state spin qubits. Physical Review B, 2006, 73, .	1.1	16
57	SILICON-BASED NUCLEAR SPIN QUANTUM COMPUTER. , 2005, , .		1
58	SILICON-BASED NUCLEAR SPIN QUANTUM COMPUTER. International Journal of Quantum Information, 2005, 03, 27-40.	0.6	4
59	REALISTIC SIMULATIONS OF SINGLE-SPIN MEASUREMENT VIA MAGNETIC RESONANCE FORCE MICROSCOPY. International Journal of Quantum Information, 2005, 03, 1-9.	0.6	2
60	High-fidelity measurement and quantum feedback control in circuit QED. Physical Review A, 2005, 72, .	1.0	52
61	REALISTIC SIMULATIONS OF SINGLE-SPIN MEASUREMENT VIA MAGNETIC RESONANCE FORCE MICROSCOPY. , 2005, , .		0
62	Voltage control of exchange coupling in phosphorus doped silicon. Journal of Physics Condensed Matter, 2004, 16, 5697-5704.	0.7	11
63	Anharmonic effects on a phonon-number measurement of a quantum-mesoscopic-mechanical oscillator. Physical Review A, 2004, 70, .	1.0	28
64	Monte Carlo method for a quantum measurement process by a single-electron transistor. Physical Review B, 2004, 70, .	1.1	17
65	Charge transport in a quantum electromechanical system. Physical Review B, 2004, 70, .	1.1	19
66	Gates for the Kane quantum computer in the presence of dephasing. Physical Review A, 2004, 70, .	1.0	12
67	Comment on "Grover search with pairs of trapped ions". Physical Review A, 2004, 69, .	1.0	5
68	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
69	Single-spin measurement by magnetic resonance force microscopy: effects of measurement device, thermal noise, and spin relaxation. , 2004, , .		2
70	Quantum electro-mechanical systems (QEMS). , 2004, , .		0
71	Fast nonadiabatic two-qubit gates for the Kane quantum computer. Physical Review A, 2003, 68, .	1.0	26
72	Single-spin measurement and decoherence in magnetic-resonance force microscopy. Physical Review B, 2003, 67, .	1.1	20

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73	Realistic simulations of single-spin nondemolition measurement by magnetic resonance force microscopy. <i>Physical Review A</i> , 2003, 68, .	1.0	25
74	Continuous quantum measurement of two coupled quantum dots using a point contact: A quantum trajectory approach. <i>Physical Review B</i> , 2001, 63, .	1.1	146
75	Dynamics of a mesoscopic charge quantum bit under continuous quantum measurement. <i>Physical Review B</i> , 2001, 64, .	1.1	109
76	Edge and bulk electron states in a quasi-one-dimensional metal in a magnetic field: The semi-infinite Wannier-Stark ladder. <i>Physical Review B</i> , 1998, 58, 8002-8008.	1.1	14
77	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. <i>Physical Review B</i> , 1998, 58, 10648-10664.	1.1	11
78	Temperature evolution of the quantum hall effect in quasi-one-dimensional organic conductors. <i>Synthetic Metals</i> , 1997, 85, 1609-1612.	2.1	2
79	Quantum Hall Effect in Quasi-One-Dimensional Conductors: The Roles of Moving FISDW, Finite Temperature, and Edge States. <i>Journal De Physique, I</i> , 1996, 6, 1917-1937.	1.2	17