Dianmin Tong

List of Publications by Year
in descending order

68 papers	3,085 citations	201385 27 h-index	155451 55 g-index
68 all docs	68 docs citations	68 times ranked	1122 citing authors

#	Article	IF	Citations
1	General scheme for superdense coding between multiparties. Physical Review A, 2002, 65, .	1.0	408
2	Non-adiabatic holonomic quantum computation. New Journal of Physics, 2012, 14, 103035.	1.2	286
3	Kinematic Approach to the Mixed State Geometric Phase in Nonunitary Evolution. Physical Review Letters, 2004, 93, 080405.	2.9	273
4	Nonadiabatic Holonomic Quantum Computation in Decoherence-Free Subspaces. Physical Review Letters, 2012, 109, 170501.	2.9	220
5	Alternative framework for quantifying coherence. Physical Review A, 2016, 94, .	1.0	127
6	Quantitative Conditions Do Not Guarantee the Validity of the Adiabatic Approximation. Physical Review Letters, 2005, 95, 110407.	2.9	120
7	Robustness of nonadiabatic holonomic gates. Physical Review A, 2012, 86, .	1.0	106
8	Geometric phases for nondegenerate and degenerate mixed states. Physical Review A, 2003, 67, .	1.0	103
9	Measure-independent freezing of quantum coherence. Physical Review A, 2016, 93, .	1.0	101
10	Sufficiency Criterion for the Validity of the Adiabatic Approximation. Physical Review Letters, 2007, 98, 150402.	2.9	93
11	Fast non-Abelian geometric gates via transitionless quantum driving. Scientific Reports, 2016, 5, 18414.	1.6	85
12	Nonadiabatic holonomic gates realized by a single-shot implementation. Physical Review A, 2015, 92, .	1.0	80
13	Rydberg-atom-based scheme of nonadiabatic geometric quantum computation. Physical Review A, 2017, 96, .	1.0	80
14	Quantitative Condition is Necessary in Guaranteeing the Validity of the Adiabatic Approximation. Physical Review Letters, 2010, 104, 120401.	2.9	70
15	Quantum computation in noiseless subsystems with fast non-Abelian holonomies. Physical Review A, 2014, 89, .	1.0	70
16	Single-shot realization of nonadiabatic holonomic quantum gates in decoherence-free subspaces. Physical Review A, 2017, 95, .	1.0	58
17	Composite nonadiabatic holonomic quantum computation. Physical Review A, 2017, 95, .	1.0	44
18	Relation between geometric phases of entangled bipartite systems and their subsystems. Physical Review A, 2003, 68, .	1.0	43

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19	Geometric phase in open systems: Beyond the Markov approximation and weak-coupling limit. Physical Review A, 2006, 73, .	1.0	38
20	Estimating Coherence Measures from Limited Experimental Data Available. Physical Review Letters, 2018, 120, 170501.	2.9	37
21	Nonadiabatic geometric quantum computation in decoherence-free subspaces based on unconventional geometric phases. Physical Review A, 2016, 94, .	1.0	35
22	Nonadiabatic holonomic quantum computation with Rydberg superatoms. Physical Review A, 2018, 98, .	1.0	32
23	Path-shortening realizations of nonadiabatic holonomic gates. Physical Review A, 2018, 98, .	1.0	29
24	General approach for constructing Hamiltonians for nonadiabatic holonomic quantum computation. Physical Review A, 2020, 101, .	1.0	29
25	Single-shot realization of nonadiabatic holonomic gates with a superconducting Xmon qutrit. New Journal of Physics, 2019, 21, 073024.	1.2	28
26	Nonadiabatic holonomic multiqubit controlled gates. Physical Review A, 2019, 99, .	1.0	28
27	Ordering states with coherence measures. Quantum Information Processing, 2016, 15, 4189-4201.	1.0	27
28	Enhancing coherence of a state by stochastic strictly incoherent operations. Physical Review A, 2017, 96, .	1.0	26
29	Geometric phase of a quantum dot system in nonunitary evolution. Physical Review A, 2009, 79, .	1.0	25
30	Robust paths to realize nonadiabatic holonomic gates. Physical Review A, 2017, 95, .	1.0	24
31	Experimental realization of nonadiabatic geometric gates with a superconducting Xmon qubit. Science China: Physics, Mechanics and Astronomy, 2021, 64, 1.	2.0	23
32	Operator-sum representation of time-dependent density operators and its applications. Physical Review A, 2004, 69, .	1.0	22
33	THERE EXIST DIFFERENT PROPOSALS FOR RELATIVISTIC TEMPERATURE TRANSFORMATION: THE WHYS AND WHEREFORES. Modern Physics Letters A, 2009, 24, 73-80.	0.5	21
34	Approach to realizing nonadiabatic geometric gates with prescribed evolution paths. Physical Review Research, 2020, 2, .	1.3	19
35	Realizing multi-qubit controlled nonadiabatic holonomic gates with connecting systems. AAPPS Bulletin, 2022, 32, 1.	2.7	19
36	Time evolution of few-cycle pulse in a dense V-type three-level medium. Journal of Modern Optics, 2008, 55, 2439-2448.	0.6	18

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37	Completely positive maps within the framework of direct-sum decomposition of state space. Physical Review A, 2014, 90, .	1.0	17
38	Flag additivity in quantum resource theories. Physical Review A, 2019, 99, .	1.0	17
39	Dynamical-decoupling-protected nonadiabatic holonomic quantum computation. Physical Review A, 2021, 103, .	1.0	15
40	Kinematic approach to off-diagonal geometric phases of nondegenerate and degenerate mixed states. Physical Review A, 2005, 71, .	1.0	13
41	Phase control of probe response in a Doppler-broadened<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>N</mml:mi></mml:mrow></mml:math>-type four-level system. Physical Review A, 2011, 83, .	1.0	13
42	Superadditivity of convex roof coherence measures. Journal of Physics A: Mathematical and Theoretical, 2018, 51, 414012.	0.7	13
43	Tong Replies:. Physical Review Letters, 2011, 106, .	2.9	10
44	Theorem on the existence of a nonzero energy gap in adiabatic quantum computation. Physical Review A, 2014, 90, .	1.0	10
45	Coexistence of Kochen-Specker inequalities and noncontextuality inequalities. Physical Review A, 2014, 89, .	1.0	10
46	A proof of the Kochenâ€“Specker theorem can always be converted to a state-independent noncontextuality inequality. New Journal of Physics, 2015, 17, 093001.	1.2	10
47	Examining the validity of Schatten- <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>p</mml:mi></mml:math> -norm-based functionals as coherence measures. Physical Review A, 2020, 102, .	1.0	10
48	Realizing nonadiabatic holonomic quantum computation beyond the three-level setting. Physical Review A, 2021, 103, .	1.0	10
49	Separable states and geometric phases of an interacting two-spin system. Physical Review A, 2010, 81, .	1.0	8
50	Relationship between first-order coherence and the maximum violation of the three-setting linear steering inequality for a two-qubit system. Physical Review A, 2021, 103, .	1.0	8
51	Realization of nonadiabatic holonomic multiqubit controlled gates with Rydberg atoms. Physical Review A, 2021, 104, .	1.0	8
52	Kraus representation for the density operator of a qubit. Laser Physics, 2006, 16, 1512-1516.	0.6	7
53	Effects of noisy quantum channels on one-qubit rotation gate. Science China: Physics, Mechanics and Astronomy, 2012, 55, 808-814.	2.0	7
54	Visualizing quantum phase transitions in the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>X</mml:mi><mml:mi>X</mml:mi><mml:mi>Z</mml:mi> model via the quantum steering ellipsoid. Physical Review A, 2021, 104, .	1.0	7

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55	Effect of preparation procedures on the systemâ€™s entanglement evolution. European Physical Journal D, 2012, 66, 1.	0.6	6
56	Investigation of transient process and steady output of lasing without inversion. Journal of Modern Optics, 2005, 52, 2127-2137.	0.6	5
57	Non-Markovian quantum dissipative processes with the same positive features as Markovian dissipative processes. Physical Review A, 2016, 93, .	1.0	5
58	Approaching Heisenberg-scalable thermometry with built-in robustness against noise. Npj Quantum Information, 2022, 8, .	2.8	5
59	Theoretical study of spectroscopic constants and anharmonic force field of formaldehyde. Journal of Theoretical and Computational Chemistry, 2014, 13, 1450049.	1.8	4
60	General approach to find steady-state manifolds in Markovian and non-Markovian systems. Physical Review A, 2016, 94, .	1.0	4
61	The effect of the environment parameters on the geometric phase of a quantum dot system. Journal of Physics A: Mathematical and Theoretical, 2010, 43, 305303.	0.7	3
62	Maximal-value condition of coherence measures holds for mixed states if and only if it does for pure states. Physical Review A, 2020, 102, .	1.0	3
63	Coherence-protected nonadiabatic geometric quantum computation. Physical Review Research, 2021, 3, .	1.3	3
64	General formalism of Hamiltonians for realizing a prescribed evolution of a qubit. Physical Review A, 2003, 68, .	1.0	2
65	Geometric phase for mixed states. Laser Physics, 2006, 16, 398-401.	0.6	2
66	Universal freezing of asymmetry. Physical Review A, 2017, 95, .	1.0	2
67	Dynamics of Geometric Measure of Quantum Discord of Two Qubits in Independent Reservoirs. Journal of the Physical Society of Japan, 2013, 82, 064002.	0.7	1
68	The hybrid quantum computer. Laser Physics, 2007, 17, 1085-1088.	0.6	0