

Wei-Min Zhang

List of Publications by Year in descending order

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116
papers

4,429
citations

159585

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all docs

117
docs citations

117
times ranked

1863
citing authors

#	ARTICLE	IF	CITATIONS
1	Nonperturbative renormalization of quantum thermodynamics from weak to strong couplings. <i>Physical Review Research</i> , 2022, 4, .	3.6	9
2	The differential conductance tunnel spectroscopy in an analytical solvable two-terminal Majorana device. <i>New Journal of Physics</i> , 2022, 24, 073015.	2.9	1
3	Non-Markovian decoherence dynamics of strong-coupling hybrid quantum systems: A master equation approach. <i>Physical Review A</i> , 2021, 103, .	2.5	8
4	Modeling Neuronal Systems as an Open Quantum System. <i>Symmetry</i> , 2021, 13, 1603.	2.2	3
5	Manipulating Majorana qubit states without braiding. <i>Physical Review B</i> , 2021, 104, .	3.2	3
6	Controlling the dynamics of dissipationless localized bound states in open quantum systems with periodic driving fields. <i>Physical Review A</i> , 2021, 104, .	2.5	0
7	Quantum theory of dissipative topological systems. <i>Physical Review B</i> , 2020, 102, .	3.2	13
8	Probing topological states through the exact non-Markovian decoherence dynamics of a spin coupled to a spin bath in the real-time domain. <i>Physical Review B</i> , 2020, 102, .	3.2	5
9	Quantum thermodynamics of single particle systems. <i>Scientific Reports</i> , 2020, 10, 13500.	3.3	20
10	Exact dynamics and thermalization of open quantum systems coupled to reservoirs through particle exchanges. <i>Physical Review A</i> , 2020, 102, .	2.5	4
11	Decoherence dynamics of Majorana qubits under braiding operations. <i>Physical Review B</i> , 2020, 101, .	3.2	7
12	Exact master equation and general non-Markovian dynamics in open quantum systems. <i>European Physical Journal: Special Topics</i> , 2019, 227, 1849-1867.	2.6	19
13	Exact master equation and non-Markovian decoherence dynamics of Majorana zero modes under gate-induced charge fluctuations. <i>Physical Review B</i> , 2018, 97, .	3.2	32
14	Buildup of Fano resonances in the time domain in a double quantum dot Aharonov-Bohm interferometer. <i>Physical Review B</i> , 2018, 97, .	3.2	12
15	Manipulating quantum coherence of charge states in interacting double-dot Aharonov-Bohm interferometers. <i>New Journal of Physics</i> , 2018, 20, 043043.	2.9	5
16	Nonequilibrium transient dynamics of photon statistics. <i>Physical Review A</i> , 2017, 95, .	2.5	13
17	Master equation approach to transient quantum transport in nanostructures. <i>Frontiers of Physics</i> , 2017, 12, 1.	5.0	20
18	Quantum coherence of the molecular states and their corresponding currents in nanoscale Aharonov-Bohm interferometers. <i>Physical Review B</i> , 2016, 94, .	3.2	5

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19	Transient probing of the symmetry and the asymmetry of electron interference. <i>Physical Review B</i> , 2016, 93, .	3.2	13
20	Non-equilibrium quantum phase transition via entanglement decoherence dynamics. <i>Scientific Reports</i> , 2016, 6, 34804.	3.3	13
21	Non-Markovianity measure using two-time correlation functions. <i>Physical Review A</i> , 2015, 92, .	2.5	41
22	Master equation approach to transient quantum transport in nanostructures incorporating initial correlations. <i>Physical Review B</i> , 2015, 92, .	3.2	29
23	ZhangetÅal.Reply:. <i>Physical Review Letters</i> , 2015, 115, 168902.	7.8	1
24	Non-Markovian Complexity in the Quantum-to-Classical Transition. <i>Scientific Reports</i> , 2015, 5, 13353.	3.3	57
25	Breakdown of Bose-Einstein Distribution in Photonic Crystals. <i>Scientific Reports</i> , 2015, 5, 9423.	3.3	37
26	Exact decoherence dynamics of $1/f$ noise. <i>New Journal of Physics</i> , 2014, 16, 103010.	2.9	7
27	Transient current-current correlations and noise spectra. <i>Physical Review B</i> , 2014, 89, .	3.2	23
28	Real-time dynamics of spin-dependent transport through a double-quantum-dot Aharonov-Bohm interferometer with spin-orbit interaction. <i>Physical Review B</i> , 2014, 90, .	3.2	9
29	Master equation and dispersive probing of a non-Markovian process. <i>Physical Review A</i> , 2013, 87, .	2.5	20
30	Quantum-criticality-induced strong Kerr nonlinearities in optomechanical systems. <i>Scientific Reports</i> , 2013, 3, 2943.	3.3	150
31	Precision control of charge coherence in parallel double dot systems through spin-orbit interaction. <i>Journal of Chemical Physics</i> , 2013, 139, 064706.	3.0	4
32	Coherent control of double-dot molecules using Aharonov-Bohm magnetic flux. <i>Physical Review B</i> , 2012, 86, .	3.2	6
33	Dynamically stabilized decoherence-free states in non-Markovian open fermionic systems. <i>Physical Review A</i> , 2012, 86, .	2.5	16
34	Decoherence suppression via non-Markovian coherent feedback control. <i>Physical Review A</i> , 2012, 86, .	2.5	75
35	General Non-Markovian Dynamics of Open Quantum Systems. <i>Physical Review Letters</i> , 2012, 109, 170402.	7.8	272
36	Transient quantum transport in double-dot Aharonov-Bohm interferometers. <i>Physical Review B</i> , 2012, 86, .	3.2	22

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37	A quantum photonic dissipative transport theory. <i>Annals of Physics</i> , 2012, 327, 1408-1433.	2.8	63
38	Deterministic chaos can act as a decoherence suppressor. <i>Physical Review B</i> , 2011, 84, .	3.2	18
39	Entangling two distant nanocavities via a waveguide. <i>Physical Review A</i> , 2011, 83, .	2.5	30
40	Single-electron turnstile pumping with high frequencies. <i>Applied Physics Letters</i> , 2011, 99, .	3.3	6
41	Decoherence suppression of open quantum systems through a strong coupling to non-Markovian reservoirs. <i>Physical Review A</i> , 2011, 84, .	2.5	39
42	Non-Markovian dynamics of an open quantum system with initial system-reservoir correlations: A nanocavity coupled to a coupled-resonator optical waveguide. <i>Physical Review A</i> , 2011, 83, .	2.5	90
43	Intrinsic coherence dynamics and phase localization in nanoscale Aharonov-Bohm interferometers. <i>Physical Review B</i> , 2011, 83, .	3.2	16
44	Exact non-Markovian cavity dynamics strongly coupled to a reservoir. <i>Physical Review A</i> , 2010, 82, .	2.5	62
45	Decoherence dynamics of coherent electronic excited states in the photosynthetic purple bacterium <i>Rhodospirillum rubrum</i> . <i>Physical Review E</i> , 2010, 81, 011906.	2.1	14
46	Non-equilibrium quantum theory for nanodevices based on the Feynman-Vernon influence functional. <i>New Journal of Physics</i> , 2010, 12, 083013.	2.9	95
47	Non-Markovian dynamics of a microcavity coupled to a waveguide in photonic crystals. <i>Optics Express</i> , 2010, 18, 18407.	3.4	42
48	Influence of surface plasmon resonance on the emission intermittency of photoluminescence from gold nano-sea-urchins. <i>Nanoscale</i> , 2010, 2, 2639.	5.6	35
49	Entanglement oscillation and survival induced by non-Markovian decoherence dynamics of the entangled squeezed state. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2009, 42, 015302.	2.1	12
50	Exact master equation and non-markovian decoherence for quantum dot quantum computing. <i>Quantum Information Processing</i> , 2009, 8, 631-646.	2.2	22
51	Entangling two superconducting L and C coherent modes via a superconducting flux qubit. <i>Physical Review B</i> , 2009, 80, .	3.2	31
52	Magnetic field switching in parallel quantum dots. <i>Europhysics Letters</i> , 2009, 88, 37001.	2.0	18
53	Non-Markovian decoherence theory for a double-dot charge qubit. <i>Physical Review B</i> , 2008, 78, .	3.2	203
54	Non-Markovian suppression of charge qubit decoherence in the quantum point contact measurement. <i>Journal of Chemical Physics</i> , 2008, 129, 224106.	3.0	11

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55	Exact wave packet decoherence dynamics in a discrete spectrum environment. Journal of Physics B: Atomic, Molecular and Optical Physics, 2008, 41, 245501.	1.5	0
56	Generation of entangled photon pairs by semiconductor quantum dots in a structure of quantum cellular automata. Journal of Physics Condensed Matter, 2007, 19, 326215.	1.8	1
57	Non-Markovian entanglement dynamics of noisy continuous-variable quantum channels. Physical Review A, 2007, 76, .	2.5	134
58	Charge-to-spin conversion of electron entanglement states and spin-interaction-free solid-state quantum computation. Physical Review B, 2007, 76, .	3.2	9
59	Decoherence induced by electron accumulation in a quantum measurement of charge qubits. Physical Review B, 2006, 74, .	3.2	7
60	Implementing controlled-NOT gate based on free spin qubits with semiconductor quantum-dot array. Europhysics Letters, 2005, 71, 524-529.	2.0	4
61	QUANTUM COMPUTATION BASED ON ELECTRON SPIN QUBITS WITHOUT SPIN-SPIN INTERACTION. International Journal of Quantum Information, 2005, 03, 155-162.	1.1	0
62	Quantum Nonlinear Model for Arbitrary Spin Heisenberg Antiferromagnets. Physical Review Letters, 2005, 95, 167205.	7.8	3
63	EFFECTS OF INTERFACIAL PSEUDO-SPIN COUPLING FLUCTUATIONS ON THE DIELECTRIC PROPERTIES OF FERROELECTRIC SUPERLATTICES. International Journal of Modern Physics B, 2005, 19, 3193-3203.	2.0	1
64	QUANTUM COMPUTATION BASED ON ELECTRON SPIN QUBITS WITHOUT SPIN-SPIN INTERACTION. , 2005, , .		0
65	Chiral symmetry in light-front QCD. Journal of High Energy Physics, 2004, 2004, 045-045.	4.7	6
66	SUM(2) \tilde{A} -UC(1) gauge symmetry in high-Tc superconductivity. Physical Review B, 2002, 65, .	3.2	1
67	Nontrivial gauge symmetry in high Tc superconductivity. Physica C: Superconductivity and Its Applications, 2001, 364-365, 147-150.	1.2	1
68	Mesonic tensor form factors with the light front quark model. Physical Review D, 2001, 64, .	4.7	23
69	Coherent pairing state and high Tc superconductivity. Physica C: Superconductivity and Its Applications, 2000, 341-348, 313-314.	1.2	0
70	Nonperturbative determination of heavy meson bound states. Nuclear Physics A, 2000, 663-664, 667c-670c.	1.5	0
71	STUDY OF RADIATIVE LEPTONIC D MESON DECAYS. Modern Physics Letters A, 2000, 15, 2087-2103.	1.2	26
72	Study of Bs, d \hat{t} 'l+l \hat{a} ' \hat{f} 3 decays. Physical Review D, 2000, 62, .	4.7	41

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73	Underlying pairing states in cuprate superconductors. Physical Review B, 2000, 61, R898-R901.	3.2	2
74	NONPERTURBATIVE DESCRIPTION OF B-MESONS. , 2000, , .		0
75	Nonperturbative determination of heavy meson bound states. Physical Review D, 1999, 60, .	4.7	3
76	Nonperturbative description of deep inelastic structure functions in light-front QCD. Physical Review D, 1999, 59, .	4.7	18
77	Study of $B_c \rightarrow \hat{a}^+ l^+ \hat{l}^+ \hat{l}^3$ decays in the light front model. Physical Review D, 1999, 59, .	4.7	22
78	Deep inelastic structure functions in light-front QCD: Radiative corrections. Physical Review D, 1999, 59, .	4.7	33
79	Radiative leptonic B decays in the light front model. Physical Review D, 1998, 57, 5697-5702.	4.7	43
80	Influence of dynamical Pauli effect and dynamical symmetry breaking on quantum chaos. Physical Review C, 1998, 57, 637-647.	2.9	0
81	Covariant light-front model of heavy mesons within heavy quark effective theory. Physical Review D, 1998, 57, 5598-5610.	4.7	24
82	Effective field theory of heavy mesons. Physical Review D, 1998, 58, .	4.7	3
83	Quantum Frenkel-Kontorova model: a squeezed state approach. Physical Review E, 1998, 58, R4068-R4071.	2.1	17
84	FIELD-THEORETIC REALIZATION OF HEAVY MESONS AS COMPOSITE PARTICLES. Modern Physics Letters A, 1998, 13, 2163-2171.	1.2	4
85	Weak-coupling treatment of nonperturbative QCD dynamics to heavy hadrons. Physical Review D, 1997, 56, 1528-1548.	4.7	24
86	$B \rightarrow \pi \{u\}$ form factors calculated on the light-front. Zeitschrift für Physik C-Particles and Fields, 1997, 75, 657-664.	1.5	30
87	The matrix element of the transverse component of the bilocal vector current and its parton interpretation. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1997, 390, 359-362.	4.1	7
88	Examination of Wandzura-Wilczek relation for $g_2(x, Q^2)$ in pQCD. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1997, 408, 347-356.	4.1	17
89	HEAVY QUARK EFFECTIVE THEORY ON THE LIGHT FRONT. International Journal of Modern Physics A, 1996, 11, 3297-3305.	1.5	8
90	Quantum nonintegrability in finite systems. Physics Reports, 1995, 252, 1-100.	25.6	65

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91	Light-front heavy-quark effective theory and heavy-meson bound states. Physical Review D, 1995, 52, 2915-2925.	4.7	21
92	Wave-packet localization in nonlinear external potentials with dissipation. Physical Review A, 1995, 52, 1746-1749.	2.5	8
93	Possibility that Schrödinger's conjecture for the hydrogen-atom coherent states is not attainable. Physical Review A, 1994, 50, R1973-R1975.	2.5	18
94	Nonperturbative QCD: A weak-coupling treatment on the light front. Physical Review D, 1994, 49, 6720-6766.	4.7	240
95	A simple example of light-front current renormalization. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1994, 333, 158-165.	4.1	3
96	Classicalization and Coherent States. , 1994, , .		0
97	Residual gauge fixing in light-front QCD. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1993, 314, 223-228.	4.1	16
98	GEOMETRY IN QUANTUM NON-INTEGRABILITY. Modern Physics Letters A, 1993, 08, 1417-1425.	1.2	4
99	Light-front QCD. III. Coupling constant renormalization. Physical Review D, 1993, 48, 4903-4915.	4.7	39
100	Light-front QCD. I. Role of longitudinal boundary integrals. Physical Review D, 1993, 48, 4868-4880.	4.7	47
101	Light-front QCD. II. Two-component theory. Physical Review D, 1993, 48, 4881-4902.	4.7	81
102	Quantum-Classical Correspondence and Quantum Chaos. , 1992, , 66-107.		0
103	Transport theory of relativistic heavy-ion collisions with chiral symmetry. Physical Review C, 1992, 45, 1900-1917.	2.9	42
104	Solar weak currents, neutrino oscillations, and time variations. Physical Review D, 1991, 43, 2484-2494.	4.7	27
105	Dynamical symmetry breaking and mean-field chaotic motions in nuclear many-body systems. Physical Review C, 1991, 43, 1127-1139.	2.9	9
106	Coherent states: Theory and some applications. Reviews of Modern Physics, 1990, 62, 867-927.	45.6	1,277
107	Integrability and nonintegrability of quantum systems. II. Dynamics in quantum phase space. Physical Review A, 1990, 42, 7125-7150.	2.5	29
108	Quantum fluctuations in classical chaos. Physical Review A, 1990, 42, 3646-3649.	2.5	8

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109	Integrability and nonintegrability of quantum systems: Quantum integrability and dynamical symmetry. Physical Review A, 1989, 40, 438-447.	2.5	53
110	Dynamical Pauli effect on geometry. Journal of Physics G: Nuclear and Particle Physics, 1989, 15, L115-L121.	3.6	10
111	Symmetry constrained Hartree-Fock-Bogoliubov theory with applications to the fermion dynamical symmetry model. Nuclear Physics A, 1989, 505, 7-25.	1.5	8
112	Dynamical Symmetry Breaking and Quantum Nonintegrability. Physical Review Letters, 1988, 61, 2167-2170.	7.8	38
113	Geometrical structure and critical phenomena in the fermion dynamical symmetry model: SO(8). Physical Review C, 1988, 37, 1281-1294.	2.9	28
114	Geometrical structure and critical phenomena in the fermion dynamical symmetry model: Sp(6). Physical Review C, 1988, 38, 1475-1487.	2.9	30
115	Geometrical interpretation of SO(7): A critical dynamical symmetry. Physical Review Letters, 1987, 59, 2032-2035.	7.8	35
116	Nobel Metal Nanoparticles in Bio-LED. , 0, , .		0