Qun Wang

List of Publications by Year
in descending order

87 papers	3,524 citations	126907 33 h-index	144013 57 g-index
89 all docs	89 docs citations	89 times ranked	963 citing authors

#	Article	IF	Citations
1	Quark polarization from parton scatterings in heavy ion collisions. Nuclear Physics A, 2021, 1005, 121786.	1.5	0
2	Local Spin Polarization in 200 GeV Au+Au and 2.76 TeV Pb+Pb Collisions. Nuclear Physics A, 2021, 1005, 121831.	1.5	8
3	Rapidity dependence of global polarization in heavy ion collisions *. Chinese Physics C, 2021, 45, 014102.	3.7	15
4	Global Polarization Effect and Spin-Orbit Coupling in Strong Interaction. Lecture Notes in Physics, 2021, , 195-246.	0.7	10
5	Generating Spin Polarization from Vorticity through Nonlocal Collisions. Physical Review Letters, 2021, 127, 052301.	7.8	85
6	From Kadanoff-Baym to Boltzmann equations for massive spin- <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mn>1</mml:mn><mml:mo>/</mml:mo><mml:mn>2</mml:mn></mml:mrow></mml:math> fermions. Physical Review D, 2021, 104, .	4.7	62
7	Derivation of the nonlocal collision term in the relativistic Boltzmann equation for massive spin- <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mn>1</mml:mn><mml:mo>/</mml:mo><mml:mn>2</mml:mn></mml:mrow></mml:math> particles from quantum field theory. Physical Review D, 2021, 104, .	4.7	64
8	Lepton pair production in ultraperipheral collisions. Physical Review D, 2021, 104, .	4.7	16
9	Space-average electromagnetic fields and electromagnetic anomaly weighted by energy density in heavy-ion collisions. Physical Review C, 2021, 104, .	2.9	14
10	Vorticity and Spin Polarization in Heavy Ion Collisions: Transport Models. Lecture Notes in Physics, 2021, , 281-308.	0.7	11
11	Quantum kinetic theory for spin-1/2 fermions in Wigner function formalism. International Journal of Modern Physics A, 2021, 36, 2130001.	1.5	22
12	Ideal Spin Hydrodynamics from the Wigner Function Approach. Chinese Physics Letters, 2021, 38, 116701.	3.3	41
13	ZMCintegral: A package for multi-dimensional Monte Carlo integration on multi-GPUs. Computer Physics Communications, 2020, 248, 106962.	7.5	19
14	Kinetic theory with spin: From massive to massless fermions. Physical Review D, 2020, 102, .	4.7	19
15	Recent developments in chiral and spin polarization effects in heavy-ion collisions. Nuclear Science and Techniques/Hewuli, 2020, 31, 1.	3.4	76
16	Improved quark coalescence model for spin alignment and polarization of hadrons. Physical Review D, 2020, 102, .	4.7	38
17	Towards a full solution of the relativistic Boltzmann equation for quark-gluon matter on GPUs. Physical Review D, 2020, 102, .	4.7	14
18	What can we learn from the global spin alignment of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Ï•</mml:mi></mml:math> mesons in heavy-ion collisions?. Physical Review D, 2020, 101, .	4.7	57

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19	Dirac sea and chiral anomaly in the quantum kinetic theory. Physical Review D, 2020, 101, .	4.7	16
20	Second-order charge currents and stress tensor in a chiral system. Physical Review D, 2020, 102, .	4.7	15
21	Wigner function and pair production in parallel electric and magnetic fields. Physical Review D, 2019, 99, .	4.7	33
22	Chiral vortical effect in Wigner function approach. Physical Review D, 2019, 100, .	4.7	30
23	Anomalous magnetohydrodynamics with longitudinal boost invariance and chiral magnetic effect. Physical Review D, 2019, 99, .	4.7	25
24	Alternative methods for measurement of the global polarization of Î› hyperons. Chinese Physics C, 2019, 43, 014103.	3.7	3
25	Kinetic theory for massive <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>spin</mml:mi><mml:mtext>â”</mml:mtext><mml:mrow><mml:mn>1</mml:mn><mml:mo>/</mml:mo><mml:mn particles from the Wigner-function formalism. Physical Review D, 2019, 100, .	4.7	140
26	Microscopic description for polarization in particle scattering. Physical Review C, 2019, 100, .	2.9	49
27	Local spin polarization in high energy heavy ion collisions. Physical Review Research, 2019, 1, .	3.6	71
28	Wigner functions for fermions in strong magnetic fields. European Physical Journal A, 2018, 54, 1.	2.5	30
29	Quark coalescence model for polarized vector mesons and baryons. Physical Review C, 2018, 97, .	2.9	43
30	Probing vorticity structure in heavy-ion collisions by local <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi mathvariant="normal">Î›</mml:mi></mml:math> polarization. Physical Review C, 2018, 98, .	2.9	124
31	Nonresistive dissipative magnetohydrodynamics from the Boltzmann equation in the 14-moment approximation. Physical Review D, 2018, 98, .	4.7	62
32	Disentangling covariant Wigner functions for chiral fermions. Physical Review D, 2018, 98, .	4.7	67
33	Off-equilibrium infrared structure of self-interacting scalar fields: Universal scaling, vortex-antivortex superfluid dynamics, and Bose-Einstein condensation. Physical Review A, 2018, 97, .	2.5	20
34	Pseudoscalar condensation induced by chiral anomaly and vorticity for massive fermions. Physical Review D, 2017, 95, .	4.7	29
35	Super-spiral structures of bi-stable spiral waves and a new instability of spiral waves. Chemical Physics Letters, 2017, 685, 205-209.	2.6	6
36	Global <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi mathvariant="normal">Î›</mml:mi></mml:math> polarization in heavy-ion collisions from a transport model. Physical Review C, 2017, 96, .	2.9	132

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37	Global and local spin polarization in heavy ion collisions: a brief overview. Nuclear Physics A, 2017, 967, 225-232.	1.5	42
38	Covariant chiral kinetic equation in the Wigner function approach. Physical Review D, 2017, 96, .	4.7	50
39	Vorticity and Î› polarization in event-by-event (3+1)D viscous hydrodynamics. Journal of Physics: Conference Series, 2017, 779, 012069.	0.4	5
40	Approach to Chandrasekhar-Kendall-Woltjer state in a chiral plasma. Physical Review D, 2016, 94, .	4.7	17
41	Vortical Fluid and <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi mathvariant="normal">Î›</mml:mi></mml:mrow></mml:math> Spin Correlations in High-Energy Heavy-Ion Collisions. Physical Review Letters, 2016, 117, 192301.	7.8	143
42	Electromagnetic fields with electric and chiral magnetic conductivities in heavy ion collisions. Physical Review C, 2016, 94, .	2.9	62
43	Polarization of massive fermions in a vortical fluid. Physical Review C, 2016, 94, .	2.9	130
44	Physics perspectives of heavy-ion collisions at very high energy. Science China: Physics, Mechanics and Astronomy, 2016, 59, 1.	5.1	15
45	Magnetic moment, vorticity-spin coupling and parity-odd conductivity of chiral fermions in 4-dimensional Wigner functions. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2015, 749, 542-546.	4.1	27
46	From holography towards real-world nuclear matter. Physical Review D, 2015, 92, .	4.7	44
47	Charm quarks in medium and their contribution to di-electron spectra in relativistic heavy ion collisions. Physical Review C, 2014, 89, .	2.9	16
48	Relics of minijets amid anisotropic flows in high-energy heavy-ion collisions. Physical Review C, 2014, 89, .	2.9	10
49	Kinetic equations for massive Dirac fermions in electromagnetic field with non-Abelian Berry phase. Physical Review D, 2014, 89, .	4.7	50
50	Shear and bulk viscosities of a gluon plasma in perturbative QCD: Comparison of different treatments for the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>g</mml:mi><mml:mi>g</mml:mi><mml:mo>â†”</mml:mo><mml:mi>g</mml:mi><mml:mi>g</mml:mi><mml:mi>g</mml:mi> Physical Review C, 2013, 87, .	2.9	15
51	Berry Curvature and Four-Dimensional Monopoles in the Relativistic Chiral Kinetic Equation. Physical Review Letters, 2013, 110, 262301.	7.8	229
52	Shear and bulk viscosities of a weakly coupled quark gluon plasma with finite chemical potential and temperature: Leading-log results. Physical Review D, 2013, 87, .	4.7	11
53	Negative off-diagonal conductivities in a weakly coupled quark-gluon plasma at the leading-log order. Physical Review D, 2013, 88, .	4.7	13
54	Parity-violating quantum kinetic theory in (2+1) dimensions. Physical Review D, 2013, 88, .	4.7	12

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55	Collision Rate and Symmetry Factor in Gluon Plasma. Journal of Physics: Conference Series, 2013, 422, 012007.	0.4	0
56	Some issues of chiral anomaly in quantum kinetic approach. Journal of Physics: Conference Series, 2013, 432, 012010.	0.4	1
57	Di-electron production from vector mesons with medium modifications in heavy ion collisions. Physical Review C, 2012, 85, .	2.9	15
58	Chiral Anomaly and Local Polarization Effect from the Quantum Kinetic Approach. Physical Review Letters, 2012, 109, 232301.	7.8	212
59	Effects of initial flow velocity fluctuation in event-by-event (3+1)D hydrodynamics. Physical Review C, 2012, 86, .	2.9	166
60	Some Recent Progress on Quark Pairings in Dense Quark and Nuclear Matter. Communications in Theoretical Physics, 2012, 57, 251-270.	2.5	1
61	Magnetic tuning of the relativistic BCS-BEC crossover. Physical Review D, 2011, 84, .	4.7	14
62	Baryon formation and dissociation in dense hadronic and quark matter. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2011, 704, 347-353.	4.1	22
63	How perfect can a gluon plasma be in perturbative QCD?. Physical Review D, 2011, 83, .	4.7	20
64	Consistent description of kinetic equation with triangle anomaly. Physical Review D, 2011, 83, .	4.7	56
65	Shear viscosity of a gluon plasma in perturbative QCD. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2010, 685, 277-282.	4.1	34
66	Minijet thermalization and diffusion of transverse momentum correlation in high-energy heavy-ion collisions. Physical Review C, 2010, 81, .	2.9	7
67	Entropy puzzle and the quark combination model. Physical Review C, 2010, 81, .	2.9	9
68	Causality and stability of dissipative fluid dynamics with diffusion currents. , 2010, , .		4
69	A general derivation of differential cross section in quark-quark and quark-gluon scatterings at fixed impact parameter. Frontiers of Physics in China, 2009, 4, 509-516.	1.0	21
70	Global quark polarization in noncentral<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>A</mml:mi><mml:mo>+</mml:mo><mml:mi>A</mml:mi></mml:mrow></mml:math>collisions. Physical Review C, 2008, 77, .	2.9	154
71	BCS-BEC crossover in a relativistic boson-fermion model beyond mean field approximation. Physical Review D, 2008, 78, .	4.7	13
72	NEUTRINO EMISSION IN INHOMOGENEOUS PION CONDENSED QUARK MATTER. International Journal of Modern Physics E, 2008, 17, 1906-1916.	1.0	4

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73	Relativistic BCS-BEC crossover in a boson-fermion model. Physical Review D, 2007, 76, .	4.7	42
74	Baryon number conservation and enforced electric charge neutrality for bulk viscosity in quark matter. Physical Review D, 2007, 75, .	4.7	15
75	Neutrino emission from direct Urca processes in pion condensed quark matter. Physical Review D, 2007, 76, .	4.7	7
76	Phase space and quark mass effects in neutrino emissions in a color superconductor. Physical Review D, 2006, 74, .	4.7	19
77	Neutrino emission and cooling rates of spin-one color superconductors. Physical Review D, 2006, 73, .	4.7	46
78	Some issues about neutrino processes in color superconducting quark matter. AIP Conference Proceedings, 2006, , .	0.4	3
79	Asymmetric neutrino emission from spin-1 color superconductor. AIP Conference Proceedings, 2006, , .	0.4	0
80	Cooling Rates of Anisotropic Color Superconductors. Acta Physica Hungarica A Heavy Ion Physics, 2006, 27, 319-322.	0.4	0
81	Non-Abelian feature of parton energy loss in energy dependence of jet quenching in high-energy heavy-ion collisions. Physical Review C, 2005, 71, .	2.9	32
82	Recent developments in weak-coupling colour superconductivity. Journal of Physics G: Nuclear and Particle Physics, 2004, 30, S1251-S1254.	3.6	10
83	General effective action for high-density quark matter. Physical Review D, 2004, 70, .	4.7	13
84	From the Dysonâ€“Schwinger to the transport equation in the background field gauge of QCD. Nuclear Physics A, 2003, 714, 293-334.	1.5	12
85	Electromagnetic Meissner Effect in Spin-One Color Superconductors. Physical Review Letters, 2003, 91, 242301.	7.8	57
86	When the transition temperature in color superconductors is not like in BCS theory. Physical Review D, 2002, 66, .	4.7	75
87	How the quark self-energy affects the color-superconducting gap. Physical Review D, 2002, 65, .	4.7	68