Pengming Zhang

List of Publications by Year
in descending order

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83 papers	1,445 citations	430874 18 h-index	361022 35 g-index
83 all docs	83 docs citations	83 times ranked	864 citing authors

#	Article	IF	Citations
1	Electron-ion collider in China. Frontiers of Physics, 2021, 16, 1.	5.0	208
2	A determination of the flavor asymmetric sea quarks in the proton. European Physical Journal Plus, 2016, 131, 1.	2.6	151
3	The memory effect for plane gravitational waves. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2017, 772, 743-746.	4.1	75
4	Vortices in (Abelian) Chernâ€“Simons gauge theory. Physics Reports, 2009, 481, 83-142.	25.6	70
5	Soft gravitons and the memory effect for plane gravitational waves. Physical Review D, 2017, 96, .	4.7	65
6	Carroll symmetry of plane gravitational waves. Classical and Quantum Gravity, 2017, 34, 175003.	4.0	54
7	Non-relativistic conformal symmetries in fluid mechanics. European Physical Journal C, 2010, 65, 607-614.	3.9	50
8	Velocity Memory Effect for polarized gravitational waves. Journal of Cosmology and Astroparticle Physics, 2018, 2018, 030-030.	5.4	45
9	Wignerâ€“Souriau translations and Lorentz symmetry of chiral fermions. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2015, 742, 322-326.	4.1	32
10	The issue of gauge choice in the Landau problem and the physics of canonical and mechanical orbital angular momenta. Annals of Physics, 2018, 392, 287-322.	2.8	30
11	Relativistic Quantum Dynamics of Twisted Electron Beams in Arbitrary Electric and Magnetic Fields. Physical Review Letters, 2018, 121, 043202.	7.8	29
12	Position and spin in relativistic quantum mechanics. Physical Review A, 2020, 101, .	2.5	27
13	Manipulating Twisted Electron Beams. Physical Review Letters, 2017, 119, 243903.	7.8	26
14	Hidden-charm pentaquarks with color-octet substructure in QCD sum rules. Physical Review D, 2020, 101, .	4.7	23
15	Memory effect for impulsive gravitational waves. Classical and Quantum Gravity, 2018, 35, 065011.	4.0	21
16	Killing tensors and canonical geometry. Classical and Quantum Gravity, 2014, 31, 125001.	4.0	20
17	Exotic glueball 0Â±â^' states in QCD sum rules. Physical Review D, 2017, 96, .	4.7	20
18	Relativistic quantum-mechanical description of twisted paraxial electron and photon beams. Physical Review A, 2019, 100, .	2.5	20

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19	Doing Spin Physics with Unpolarized Particles. Physical Review Letters, 2020, 124, 192001.	7.8	19
20	Conformal killing tensors and covariant Hamiltonian dynamics. Journal of Mathematical Physics, 2014, 55, .	1.1	18
21	Glueball physics in QCD. Physical Review D, 2015, 91, .	4.7	18
22	Extracting the longitudinal structure function <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>F</mml:mi><mml:mi>L</mml:mi></mml:msub><mml:mo stretchy="false">(</mml:mo><mml:mi>x</mml:mi><mml:mo>,</mml:mo><mml:msup><mml:mi>Q</mml:mi><mml:mn>2</mml:mn></	4.7	18
23	xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>x</mml:mi></mml:math> Electric Quadrupole Moment and the Tensor Magnetic Polarizability of Twisted Electrons and a Potential for their Measurements. Physical Review Letters, 2019, 122, 063201.	7.8	18
24	KohnÊ¼s theorem and Galilean symmetry. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2011, 702, 177-180.	4.1	16
25	Silenko, Zhang, and Zou Reply:. Physical Review Letters, 2019, 122, 159302.	7.8	16
26	Scaling and conformal symmetries for plane gravitational waves. Journal of Mathematical Physics, 2020, 61, .	1.1	16
27	Ion traps and the memory effect for periodic gravitational waves. Physical Review D, 2018, 98, .	4.7	15
28	Geodesic motion in Bogoslovsky-Finsler spacetimes. Physical Review D, 2020, 102, .	4.7	14
29	Chiral decomposition in the non-commutative Landau problem. Annals of Physics, 2012, 327, 1730-1743.	2.8	13
30	Duality and helicity: the photon wave function approach. Physics Letters, Section A: General, Atomic and Solid State Physics, 2017, 381, 2375-2379.	2.1	13
31	Is the exotic <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msup><mml:mrow><mml:mn>0</mml:mn></mml:mrow><mml:mrow><mml:mo>â</mml:mo></mml:mrow></mml:msup><mml:mo><m glueball a pure gluon state?. Physical Review D, 2017, 95, .	4.7	13
32	Sturmâ€“Liouville and Carroll: at the heart of the memory effect. General Relativity and Gravitation, 2018, 50, 1.	2.0	13
33	Applications of a nonlinear evolution equation I: The parton distributions in the proton. International Journal of Modern Physics E, 2014, 23, 1450057.	1.0	12
34	Kinematic surprises in twisted-particle collisions. Physical Review D, 2020, 101, .	4.7	12
35	Transverse momentum dependent parton densities in processes with heavy quark generations. Physical Review D, 2021, 104, .	4.7	12
36	Application of the rescaling model at small Bjorken <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>x</mml:mi></mml:math> values. Physical Review D, 2017, 96, .	4.7	11

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37	Conformal symmetries and integrals of the motion in pp waves with external electromagnetic fields. Annals of Physics, 2020, 418, 168180.	2.8	11
38	NUCLEON SPIN IN QCD: OLD CRISIS AND NEW RESOLUTION. Modern Physics Letters A, 2012, 27, 1230032.	1.2	10
39	Separability and dynamical symmetry of Quantum Dots. Annals of Physics, 2014, 341, 94-116.	2.8	9
40	â€œKepler Harmoniesâ€•and conformal symmetries. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2019, 792, 324-328.	4.1	9
41	A generalized Noether theorem for scaling symmetry. European Physical Journal Plus, 2020, 135, 1.	2.6	9
42	Kohn condition and exotic Newtonâ€“Hooke symmetry in the non-commutative Landau problem. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2012, 706, 442-446.	4.1	8
43	Twisted particle collisions: A new tool for spin physics. Physical Review D, 2020, 101, .	4.7	8
44	Paraxial wave function and Gouy phase for a relativistic electron in a uniform magnetic field. Journal of Physics G: Nuclear and Particle Physics, 2020, 47, 055003.	3.6	8
45	Regularization of electroweak monopole by charge screening and BPS energy bound. European Physical Journal C, 2020, 80, 1.	3.9	8
46	Anomalous Hall effect for semiclassical chiral fermions. Physics Letters, Section A: General, Atomic and Solid State Physics, 2015, 379, 507-510.	2.1	7
47	Helicity of spin-extended chiral particles. Physics Letters, Section A: General, Atomic and Solid State Physics, 2016, 380, 1677-1683.	2.1	7
48	General quantum-mechanical solution for twisted electrons in a uniform magnetic field. Physical Review A, 2021, 103, .	2.5	7
49	Decay of the vortex muon. Physical Review D, 2021, 104, .	4.7	7
50	Anomalous pion production induced by nontrivial topological structure of QCD vacuum. Physical Review D, 2015, 92, .	4.7	6
51	Gluonic structure of the constituent quark. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2016, 757, 420-425.	4.1	6
52	Fate of the Landauâ€“Yang theorem for twisted photons. Journal of Optics (United Kingdom), 2019, 21, 114001.	2.2	6
53	Role of guiding center in Landau level system and mechanical and pseudo orbital angular momenta. International Journal of Modern Physics A, 2020, 35, 2050096.	1.5	6
54	Time-Dependent Conformal Transformations and the Propagator for Quadratic Systems. Symmetry, 2021, 13, 1866.	2.2	6

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55	Particle motion in circularly polarized vacuum pp waves. Classical and Quantum Gravity, 2022, 39, 035008.	4.0	6
56	Applications of a nonlinear evolution equation II: The EMC effect. International Journal of Modern Physics E, 2014, 23, 1450058.	1.0	5
57	Noise reduction by combining smearing with multi-level integration methods. International Journal of Modern Physics E, 2014, 23, 1460008.	1.0	5
58	Duality and helicity: A symplectic viewpoint. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2016, 761, 265-268.	4.1	5
59	Abelian decomposition and glueball-quarkonium mixing in QCD. Physical Review D, 2018, 98, .	4.7	5
60	Antishadowing in the Rescaling Model at x ~ 0.1. Physics of Particles and Nuclei Letters, 2019, 16, 311-314.	0.4	5
61	Observability of the superkick effect within a quantum-field-theoretical approach. Physical Review A, 2022, 105, .	2.5	5
62	Hadronic electroweak current and Ï€âˆ’a1 mixing. Physical Review D, 2018, 98, .	4.7	4
63	On microscopic structure of the QCD vacuum. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2018, 780, 479-484.	4.1	4
64	Gravitational waves and conformal time transformations. Annals of Physics, 2022, 440, 168833.	2.8	4
65	Pauli form factor of quark and nontrivial topological structure of the QCD. Physical Review D, 2017, 96, .	4.7	3
66	Neutronâ€“proton scattering and singular potentials. Journal of Physics G: Nuclear and Particle Physics, 2018, 45, 105103.	3.6	3
67	Modeling the gluon and ghost propagators in Landau gauge by truncated Dyson-Schwinger equations. European Physical Journal Plus, 2019, 134, 1.	2.6	3
68	Reentrant pion superfluidity and cosmic trajectories within a PNJL model. Physical Review D, 2021, 104, .	4.7	3
69	Nonperturbative collisional energy loss of heavy quarks in quark-gluon plasma. Physical Review C, 2016, 93, .	2.9	2
70	New topological structures of Skyrme theory: baryon number and monopole number. European Physical Journal C, 2017, 77, 1.	3.9	2
71	Effective potential for relativistic scattering. Progress of Theoretical and Experimental Physics, 2017, 2017, .	6.6	2
72	Knots in physics. International Journal of Modern Physics A, 2018, 33, 1830006.	1.5	2

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73	Conditions for Vacuum Instability in Holographic Theories with Dilaton Field. Advances in High Energy Physics, 2020, 2020, 1-11.	1.1	2
74	Detection of magnetic impurities using electron vortex beams. Applied Physics Letters, 2021, 118, .	3.3	2
75	Single-spin asymmetries in SIDIS induced by anomalous quark-gluon and quark-photon couplings. Physical Review D, 2017, 96, .	4.7	1
76	Fundamental operators in Dirac quantum mechanics. Journal of Physics: Conference Series, 2020, 1435, 012027.	0.4	1
77	Dynamic stabilization of Rayleigh-Taylor instability driven by 4 impulses in Newtonian fluids. , 2011, , .		0
78	THE TOPOLOGICAL STRUCTURE OF SINGLE VORTEX IN THE FF STATE. Modern Physics Letters B, 2011, 25, 2041-2051.	1.9	0
79	Gluonic Distribution in the Constituent Quark and Nucleon Induced by the Instantons. Physics of Particles and Nuclei Letters, 2018, 15, 371-375.	0.4	0
80	Dynamics of an orbital polarization of twisted electron beams in electric and magnetic fields. EPJ Web of Conferences, 2019, 204, 10008.	0.3	0
81	Marchenko method with incomplete data and singular nucleon scattering. Progress of Theoretical and Experimental Physics, 2019, 2019, .	6.6	0
82	Instanton induced transverse single spin asymmetry for Ï€0 production in pp scattering. Physical Review D, 2021, 103, .	4.7	0
83	Breathing mode of relativistic twisted electron beams under periodic magnetic field. Japanese Journal of Applied Physics, 2021, 60, 016501.	1.5	0