

Pengming Zhang

List of Publications by Year in descending order

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83
papers

1,445
citations

430874

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35
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83
all docs

83
docs citations

83
times ranked

864
citing authors

#	ARTICLE	IF	CITATIONS
1	Particle motion in circularly polarized vacuum pp waves. <i>Classical and Quantum Gravity</i> , 2022, 39, 035008.	4.0	6
2	Observability of the superkick effect within a quantum-field-theoretical approach. <i>Physical Review A</i> , 2022, 105, .	2.5	5
3	Gravitational waves and conformal time transformations. <i>Annals of Physics</i> , 2022, 440, 168833.	2.8	4
4	General quantum-mechanical solution for twisted electrons in a uniform magnetic field. <i>Physical Review A</i> , 2021, 103, .	2.5	7
5	Detection of magnetic impurities using electron vortex beams. <i>Applied Physics Letters</i> , 2021, 118, .	3.3	2
6	Instanton induced transverse single spin asymmetry for $\bar{\nu}_e$ production in pp scattering. <i>Physical Review D</i> , 2021, 103, .	4.7	0
7	Electron-ion collider in China. <i>Frontiers of Physics</i> , 2021, 16, 1.	5.0	208
8	Decay of the vortex muon. <i>Physical Review D</i> , 2021, 104, .	4.7	7
9	Reentrant pion superfluidity and cosmic trajectories within a PNJL model. <i>Physical Review D</i> , 2021, 104, .	4.7	3
10	Transverse momentum dependent parton densities in processes with heavy quark generations. <i>Physical Review D</i> , 2021, 104, .	4.7	12
11	Time-Dependent Conformal Transformations and the Propagator for Quadratic Systems. <i>Symmetry</i> , 2021, 13, 1866.	2.2	6
12	Breathing mode of relativistic twisted electron beams under periodic magnetic field. <i>Japanese Journal of Applied Physics</i> , 2021, 60, 016501.	1.5	0
13	Role of guiding center in Landau level system and mechanical and pseudo orbital angular momenta. <i>International Journal of Modern Physics A</i> , 2020, 35, 2050096.	1.5	6
14	Doing Spin Physics with Unpolarized Particles. <i>Physical Review Letters</i> , 2020, 124, 192001.	7.8	19
15	Twisted particle collisions: A new tool for spin physics. <i>Physical Review D</i> , 2020, 101, .	4.7	8
16	Scaling and conformal symmetries for plane gravitational waves. <i>Journal of Mathematical Physics</i> , 2020, 61, .	1.1	16
17	Kinematic surprises in twisted-particle collisions. <i>Physical Review D</i> , 2020, 101, .	4.7	12
18	Hidden-charm pentaquarks with color-octet substructure in QCD sum rules. <i>Physical Review D</i> , 2020, 101, .	4.7	23

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19	Geodesic motion in Bogoslovsky-Finsler spacetimes. Physical Review D, 2020, 102, .	4.7	14
20	A generalized Noether theorem for scaling symmetry. European Physical Journal Plus, 2020, 135, 1.	2.6	9
21	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
22	Fundamental operators in Dirac quantum mechanics. Journal of Physics: Conference Series, 2020, 1435, 012027.	0.4	1
23	Conformal symmetries and integrals of the motion in pp waves with external electromagnetic fields. Annals of Physics, 2020, 418, 168180.	2.8	11
24	Conditions for Vacuum Instability in Holographic Theories with Dilaton Field. Advances in High Energy Physics, 2020, 2020, 1-11.	1.1	2
25	Position and spin in relativistic quantum mechanics. Physical Review A, 2020, 101, .	2.5	27
26	Regularization of electroweak monopole by charge screening and BPS energy bound. European Physical Journal C, 2020, 80, 1.	3.9	8
27	Antishadowing in the Rescaling Model at $x \sim 0.1$. Physics of Particles and Nuclei Letters, 2019, 16, 311-314.	0.4	5
28	Modeling the gluon and ghost propagators in Landau gauge by truncated Dyson-Schwinger equations. European Physical Journal Plus, 2019, 134, 1.	2.6	3
29	Fate of the Landau-â€Yang theorem for twisted photons. Journal of Optics (United Kingdom), 2019, 21, 114001.	2.2	6
30	Extracting the longitudinal structure function $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" style="font-size: 0.8em; margin-left: 2em;">F_2(x, Q^2)$	4.7	18
31	Dynamics of an orbital polarization of twisted electron beams in electric and magnetic fields. EPJ Web of Conferences, 2019, 204, 10008.	0.3	0
32	Relativistic quantum-mechanical description of twisted paraxial electron and photon beams. Physical Review A, 2019, 100, .	2.5	20
33	Marchenko method with incomplete data and singular nucleon scattering. Progress of Theoretical and Experimental Physics, 2019, 2019, .	6.6	0
34	Silenko, Zhang, and Zou Reply:. Physical Review Letters, 2019, 122, 159302.	7.8	16
35	â€Kepler Harmoniesâ€and conformal symmetries. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2019, 792, 324-328.	4.1	9
36	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

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37	Knots in physics. International Journal of Modern Physics A, 2018, 33, 1830006.	1.5	2
38	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
39	Memory effect for impulsive gravitational waves. Classical and Quantum Gravity, 2018, 35, 065011.	4.0	21
40	Hadronic electroweak current and η' mixing. Physical Review D, 2018, 98, .	4.7	4
41	Abelian decomposition and glueball-quarkonium mixing in QCD. Physical Review D, 2018, 98, .	4.7	5
42	Velocity Memory Effect for polarized gravitational waves. Journal of Cosmology and Astroparticle Physics, 2018, 2018, 030-030.	5.4	45
43	Relativistic Quantum Dynamics of Twisted Electron Beams in Arbitrary Electric and Magnetic Fields. Physical Review Letters, 2018, 121, 043202.	7.8	29
44	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
45	Sturm-Liouville and Carroll: at the heart of the memory effect. General Relativity and Gravitation, 2018, 50, 1.	2.0	13
46	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
47	Ion traps and the memory effect for periodic gravitational waves. Physical Review D, 2018, 98, .	4.7	15
48	Neutron-proton scattering and singular potentials. Journal of Physics G: Nuclear and Particle Physics, 2018, 45, 105103.	3.6	3
49	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
50	New topological structures of Skyrme theory: baryon number and monopole number. European Physical Journal C, 2017, 77, 1.	3.9	2
51	Is the exotic $\langle \text{tr} F^2 \rangle$ glueball a pure gluon state?. Physical Review D, 2017, 95, .		
52	Pauli form factor of quark and nontrivial topological structure of the QCD. Physical Review D, 2017, 96, .	4.7	3
53	Soft gravitons and the memory effect for plane gravitational waves. Physical Review D, 2017, 96, .	4.7	65
54	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

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55	Carroll symmetry of plane gravitational waves. <i>Classical and Quantum Gravity</i> , 2017, 34, 175003.	4.0	54
56	Manipulating Twisted Electron Beams. <i>Physical Review Letters</i> , 2017, 119, 243903.	7.8	26
57	Single-spin asymmetries in SIDIS induced by anomalous quark-gluon and quark-photon couplings. <i>Physical Review D</i> , 2017, 96, .	4.7	1
58	Application of the rescaling model at small Bjorken x values. <i>Physical Review D</i> , 2017, 96, .	4.7	11
59	Exotic glueball 0^{++} states in QCD sum rules. <i>Physical Review D</i> , 2017, 96, .	4.7	20
60	Effective potential for relativistic scattering. <i>Progress of Theoretical and Experimental Physics</i> , 2017, .	6.6	2
61	Helicity of spin-extended chiral particles. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2016, 380, 1677-1683.	2.1	7
62	Gluonic structure of the constituent quark. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2016, 757, 420-425.	4.1	6
63	Duality and helicity: A symplectic viewpoint. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2016, 761, 265-268.	4.1	5
64	Nonperturbative collisional energy loss of heavy quarks in quark-gluon plasma. <i>Physical Review C</i> , 2016, 93, .	2.9	2
65	A determination of the flavor asymmetric sea quarks in the proton. <i>European Physical Journal Plus</i> , 2016, 131, 1.	2.6	151
66	Glueball physics in QCD. <i>Physical Review D</i> , 2015, 91, .	4.7	18
67	Anomalous pion production induced by nontrivial topological structure of QCD vacuum. <i>Physical Review D</i> , 2015, 92, .	4.7	6
68	Anomalous Hall effect for semiclassical chiral fermions. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2015, 379, 507-510.	2.1	7
69	Wigner's Souriau translations and Lorentz symmetry of chiral fermions. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2015, 742, 322-326.	4.1	32
70	Applications of a nonlinear evolution equation I: The parton distributions in the proton. <i>International Journal of Modern Physics E</i> , 2014, 23, 1450057.	1.0	12
71	Applications of a nonlinear evolution equation II: The EMC effect. <i>International Journal of Modern Physics E</i> , 2014, 23, 1450058.	1.0	5
72	Noise reduction by combining smearing with multi-level integration methods. <i>International Journal of Modern Physics E</i> , 2014, 23, 1460008.	1.0	5

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73	Conformal killing tensors and covariant Hamiltonian dynamics. Journal of Mathematical Physics, 2014, 55, .	1.1	18
74	Killing tensors and canonical geometry. Classical and Quantum Gravity, 2014, 31, 125001.	4.0	20
75	Separability and dynamical symmetry of Quantum Dots. Annals of Physics, 2014, 341, 94-116.	2.8	9
76	NUCLEON SPIN IN QCD: OLD CRISIS AND NEW RESOLUTION. Modern Physics Letters A, 2012, 27, 1230032.	1.2	10
77	Chiral decomposition in the non-commutative Landau problem. Annals of Physics, 2012, 327, 1730-1743.	2.8	13
78	Kohn condition and exotic Newton-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
79	Kohn's theorem and Galilean symmetry. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2011, 702, 177-180.	4.1	16
80	Dynamic stabilization of Rayleigh-Taylor instability driven by 4 impulses in Newtonian fluids. , 2011, , .		0
81	THE TOPOLOGICAL STRUCTURE OF SINGLE VORTEX IN THE FF STATE. Modern Physics Letters B, 2011, 25, 2041-2051.	1.9	0
82	Non-relativistic conformal symmetries in fluid mechanics. European Physical Journal C, 2010, 65, 607-614.	3.9	50
83	Vortices in (Abelian) Chern-Simons gauge theory. Physics Reports, 2009, 481, 83-142.	25.6	70