

Janos Polonyi

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/3482830/publications.pdf>

Version: 2024-02-01

117
papers

2,577
citations

257450

24
h-index

197818

49
g-index

119
all docs

119
docs citations

119
times ranked

657
citing authors

#	ARTICLE	IF	CITATIONS
1	Monte Carlo study of SU(2) gauge theory at finite temperature. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1981, 98, 199-204.	4.1	403
2	Finite-Temperature Phase Transitions in SU(3) Lattice Gauge Theory with Dynamical, Light Fermions. Physical Review Letters, 1984, 53, 644-647.	7.8	152
3	Lectures on the functional renormalization group method. Open Physics, 2003, 1, 1-71.	1.7	152
4	Microcanonical Simulation of Fermionic Systems. Physical Review Letters, 1983, 51, 2257-2260.	7.8	142
5	Phase transition from strong-coupling expansion. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1982, 110, 395-398.	4.1	141
6	Nonperturbative length scale in high-temperature QCD. Physical Review Letters, 1987, 58, 847-850.	7.8	121
7	Phase transition of the nucleon-antinucleon plasma in a relativistic mean-field theory. Physical Review D, 1983, 28, 2286-2290.	4.7	107
8	Instability induced renormalization. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1999, 445, 351-356.	4.1	77
9	Viscosity and dissipative hydrodynamics from effective field theory. Physical Review D, 2015, 91, .	4.7	72
10	Simulations and Speculations on Gauge Theories with Many Fermions. Physical Review Letters, 1985, 54, 1475-1478.	7.8	55
11	Optimization of renormalization group flow. Nuclear Physics B, 2000, 567, 493-514.	2.5	55
12	Functional Callan-Symanzik Equations. Annals of Physics, 2001, 288, 37-51.	2.8	43
13	Functional Renormalization Group Approach to the Sine-Gordon Model. Physical Review Letters, 2009, 102, 241603.	7.8	43
14	Blocking Transformation in Field Theory. Annals of Physics, 1993, 222, 122-156.	2.8	42
15	Hierarchical Mass Scales in Lattice Gauge Theories with Dynamical, Light Fermions. Physical Review Letters, 1985, 54, 1980-1982.	7.8	40
16	Effective action and density-functional theory. Physical Review B, 2002, 66, .	3.2	39
17	Meson structure in QCD2. Nuclear Physics B, 1988, 307, 669-704.	2.5	36
18	Chromomagnetism and quasiparticles at finite temperature. Nuclear Physics A, 1987, 461, 279-286.	1.5	33

#	ARTICLE	IF	CITATIONS
19	Further evidence for the first-order nature of the pure gauge SU(3) deconfinement transition. Nuclear Physics B, 1985, 251, 311-332.	2.5	30
20	Functional Callan-Symanzik equation for QED. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2002, 531, 316-320.	4.1	30
21	Renormalization group and universality. Physical Review D, 1995, 51, 4474-4493.	4.7	26
22	An effective theory for the QCD vacuum. Nuclear Physics B, 1991, 367, 675-708.	2.5	25
23	RENORMALIZATION OF THE SINE-GORDON MODEL AND NONCONSERVATION OF THE KINK CURRENT. International Journal of Modern Physics A, 1991, 06, 409-429.	1.5	25
24	Renormalizable parameters of the sine-Gordon model. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2007, 647, 152-158.	4.1	25
25	Effective potential in scalar field theory. Physical Review D, 1987, 35, 3187-3192.	4.7	24
26	Quantum and thermal fluctuations in field theory. Physical Review D, 1995, 51, 748-764.	4.7	24
27	Antiferromagnetic ϕ^4 model. I. The mean-field solution. Physical Review D, 1999, 60, .	4.7	24
28	Microcanonical study of the planar spin model. Nuclear Physics B, 1986, 265, 313-323.	2.5	22
29	Quantum-classical crossover in electrodynamics. Physical Review D, 2006, 74, .	4.7	20
30	Global renormalization group. Physical Review D, 1998, 58, .	4.7	19
31	Wavefunction renormalization for the Coulomb gas by the Wegner-Houghton renormalization group method. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 2001, 81, 1615-1619.	0.6	19
32	Casimir effect: running Newton constant or cosmological term. Classical and Quantum Gravity, 2006, 23, 207-224.	4.0	19
33	ONSET OF SYMMETRY BREAKING BY THE FUNCTIONAL RG METHOD. International Journal of Modern Physics A, 2011, 26, 1327-1345.	1.5	19
34	Quantum censorship in two dimensions. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2010, 694, 89-93.	4.1	18
35	Lattice ϕ^4 theory with Yukawa couplings to staggered fermions. Physical Review D, 1988, 38, 3231-3237.	4.7	17
36	Fate of the classical false vacuum. Physical Review D, 2000, 62, .	4.7	17

#	ARTICLE	IF	CITATIONS
37	Periodic ground state for the charged massive Schwinger model. Physical Review D, 2004, 70, .	4.7	17
38	Generalized universality in the massive sine-Gordon model. Physical Review D, 2008, 77, .	4.7	17
39	Antiferromagnetic ϕ^4 model. II. The one-loop renormalization. Physical Review D, 1999, 60, .	4.7	16
40	Classical and quantum effective theories. Physical Review D, 2014, 90, .	4.7	16
41	The Higgs phase of QCD. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1990, 240, 183-187.	4.1	15
42	Renormalization Group in Quantum Mechanics. Annals of Physics, 1996, 252, 300-328.	2.8	15
43	Confinement of triality. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1988, 213, 340-346.	4.1	14
44	On the thermodynamics and scaling behaviour of SU(2) gauge theory with fermion feedback. Nuclear Physics B, 1986, 265, 293-302.	2.5	13
45	Thermodynamics of Quarks. Annals of Physics, 1993, 227, 76-96.	2.8	13
46	Renormalization group in internal space. Physical Review D, 2005, 71, .	4.7	13
47	Anti-ferromagnetic condensate in Yang-Mills theory. Nuclear Physics B, 1997, 486, 315-336.	2.5	12
48	Effective potential for the massive sine-Gordon model. Journal of Physics A, 2006, 39, 8105-8117.	1.6	12
49	Quantum renormalization group. Physical Review D, 2016, 93, .	4.7	12
50	Effective dynamics of a classical point charge. Annals of Physics, 2014, 342, 239-263.	2.8	11
51	A lattice simulation of the SU(2) vacuum structure. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1995, 357, 186-192.	4.1	9
52	Topological charge of lattice gauge theories. Physical Review D, 1984, 29, 716-721.	4.7	8
53	MICROCANONICAL SIMULATION OF FERMIONIC SYSTEMS. Physical Review Letters, 1984, 52, 401-401.	7.8	8
54	ANOMALOUS TOPOLOGICAL CURRENT IN THE NONLINEAR SIGMA MODEL. International Journal of Modern Physics A, 1991, 06, 1267-1286.	1.5	8

#	ARTICLE	IF	CITATIONS
55	Euclidean scalar field theory in the bilocal approximation. <i>Physical Review D</i> , 2018, 97, .	4.7	8
56	Periodic vacuum and particles in two dimensions. <i>Physical Review D</i> , 2000, 61, .	4.7	7
57	The Functional Callanâ€“Symanzik Equation for the Coulomb Gas. <i>Annals of Physics</i> , 2002, 296, 214-234.	2.8	7
58	Dissipation and decoherence by a homogeneous ideal gas. <i>Physical Review A</i> , 2015, 92, .	2.5	7
59	Boost invariant regulator for field theories. <i>International Journal of Modern Physics A</i> , 2019, 34, 1950017.	1.5	7
60	Tunnelling and dynamical violation of the null energy condition. <i>Physical Review D</i> , 2021, 103, .	4.7	7
61	Thermodynamics of SU(2) gauge theory with dynamical, light fermions. <i>Physical Review D</i> , 1985, 31, 3307-3309.	4.7	6
62	Crossover from strong to weak coupling in lattice gauge theory with dynamical fermions. <i>Physical Review D</i> , 1985, 31, 3304-3306.	4.7	6
63	Renormalization of composite operators. <i>Physical Review D</i> , 2001, 63, .	4.7	6
64	Subclassical fields and polarization in electrodynamics. <i>Physical Review D</i> , 2010, 82, .	4.7	6
65	Spontaneous breakdown of Lorentz symmetry in scalar QED with higher order derivatives. <i>Physical Review D</i> , 2011, 84, .	4.7	6
66	Dynamical breakdown of time reversal invariance and causality. <i>Physical Review D</i> , 2011, 84, .	4.7	6
67	Scattering in an environment. <i>Physical Review D</i> , 2012, 85, .	4.7	6
68	Dynamics of the electric current in an ideal electron gas: A sound mode inside the quasiparticles. <i>Physical Review D</i> , 2015, 92, .	4.7	6
69	Stability and causality of multi-local theories. <i>Europhysics Letters</i> , 2017, 120, 40005.	2.0	6
70	Instantaneous and dynamical decoherence. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2018, 51, 145302.	2.1	6
71	Instantons in cutoff theories. <i>Nuclear Physics B</i> , 1995, 433, 99-122.	2.5	5
72	Renormalisation Group Aided Finite Temperature Reduction of Quantum Field Theories. <i>Annals of Physics</i> , 1996, 247, 78-105.	2.8	5

#	ARTICLE	IF	CITATIONS
73	Boundary conditions and consistency of effective theories. <i>Physical Review D</i> , 2010, 81, .	4.7	5
74	Spontaneous Breakdown of the Time Reversal Symmetry. <i>Symmetry</i> , 2016, 8, 25.	2.2	5
75	A micro canonical method for fermionic systems. <i>Nuclear Physics A</i> , 1984, 418, 491-498.	1.5	4
76	Microcanonical simulation of a toy model with vacuum seizing. <i>Nuclear Physics B</i> , 1985, 251, 333-352.	2.5	4
77	Projection method for rapidab initio calculations of metals. <i>Physical Review B</i> , 2004, 70, .	3.2	4
78	Semiclassical Coulomb field. <i>Physical Review D</i> , 2008, 77, .	4.7	4
79	Renormalization in Minkowski space-time. <i>International Journal of Modern Physics A</i> , 2021, 36, 2150031.	1.5	4
80	THE CONFINEMENT-DECONFINEMENT MECHANISM. <i>Advanced Series on Directions in High Energy Physics</i> , 1990, , 1-60.	0.7	3
81	Non-perturbative effects in QED with chemical potential. <i>Nuclear Physics B</i> , 1991, 362, 599-615.	2.5	3
82	QCD at high temperature. <i>Nuclear Physics A</i> , 1992, 544, 523-526.	1.5	3
83	Mass generation at finite temperature. <i>Nuclear Physics A</i> , 1994, 570, 203-209.	1.5	3
84	Effective field theory for He4. <i>Physical Review B</i> , 2006, 73, .	3.2	3
85	The Abraham-Lorentz force and electrodynamics at the classical electron radius. <i>International Journal of Modern Physics A</i> , 2019, 34, 1950077.	1.5	3
86	Equilibrium properties and decoherence of an open harmonic oscillator. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2020, 53, 235301.	2.1	3
87	Renormalizing Open Quantum Field Theories. <i>Universe</i> , 2022, 8, 127.	2.5	3
88	Quasiparticles and spin-statistics in the deconfined phase. , 1988, , .		2
89	Renormalization group and continuum limit in Quantum Mechanics. <i>Nuclear Physics, Section B, Proceedings Supplements</i> , 1995, 42, 926-928.	0.4	2
90	Wegner-Houghton equation in low dimensions. <i>Physical Review D</i> , 2000, 61, .	4.7	2

#	ARTICLE	IF	CITATIONS
91	One-Dimensional Wigner Crystal?. Acta Physica Hungarica A Heavy Ion Physics, 2004, 19, 247-250.	0.4	2
92	Decoherence and damping in ideal gases. Europhysics Letters, 2010, 91, 67003.	2.0	2
93	CIRCULAR GEODESICS IN SCHWARZSCHILD-LIKE SPACETIMES. Modern Physics Letters A, 2011, 26, 473-479.	1.2	2
94	Yang-Mills-Higgs models with higher order derivatives. Physical Review D, 2012, 86, .	4.7	2
95	Spin-statistics for lattice QCD. Nuclear Physics, Section B, Proceedings Supplements, 1989, 9, 614-617.	0.4	1
96	Topology renormalized. Nuclear Physics, Section B, Proceedings Supplements, 1991, 20, 32-35.	0.4	1
97	Compressing gluons. Nuclear Physics, Section B, Proceedings Supplements, 1995, 42, 544-546.	0.4	1
98	Renormalization Group Transformation for the Wave Function. Annals of Physics, 1998, 268, 246-272.	2.8	1
99	Path Integral for Relativistic Equations of Motion. Annals of Physics, 1998, 268, 207-224.	2.8	1
100	Current-density functional for disordered systems. Physical Review B, 2003, 68, .	3.2	1
101	Irreversibility and decoherence in an ideal gas. Journal of Physics: Conference Series, 2015, 626, 012021.	0.4	1
102	Macroscopic Limit of Quantum Systems. Universe, 2021, 7, 315.	2.5	1
103	Elementary Open Quantum States. Symmetry, 2021, 13, 1624.	2.2	1
104	Physics of the quark-gluon plasma. Acta Physica Hungarica A Heavy Ion Physics, 1995, 2, 123-135.	0.4	1
105	On the fermion mass and lattice size dependence of SU(2) gauge theory thermodynamics. Nuclear Physics B, 1986, 270, 155-168.	2.5	0
106	Confinement and spin-statistics in the deconfined phase. Nuclear Physics A, 1989, 498, 449-453.	1.5	0
107	Gauge symmetry and quark confinement. Nuclear Physics, Section B, Proceedings Supplements, 1989, 6, 393-394.	0.4	0
108	Confinement and spin-statistics for triality. Physica A: Statistical Mechanics and Its Applications, 1989, 158, 158-168.	2.6	0

#	ARTICLE	IF	CITATIONS
109	MASS PROTECTION VIA TRANSLATIONAL INVARIANCE. Modern Physics Letters A, 1999, 14, 2277-2285.	1.2	0
110	Path integral for the Dirac equation. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1999, 453, 40-45.	4.1	0
111	Density-dependent effective action for electron systems. International Journal of Quantum Chemistry, 2003, 92, 181-191.	2.0	0
112	Running coupling constants of the Luttinger liquid. Physics Letters, Section A: General, Atomic and Solid State Physics, 2005, 347, 191-199.	2.1	0
113	Environment induced time arrow and the Closed Time Path method. Journal of Physics: Conference Series, 2013, 442, 012072.	0.4	0
114	PROTON SCATTERING ON AN ELECTRON GAS. International Journal of Modern Physics A, 2013, 28, 1350091.	1.5	0
115	Time scale of stationary decoherence. Physical Review A, 2017, 96, .	2.5	0
116	SPINODAL INSTABILITY AND CONFINEMENT. , 2006, , .		0
117	GLUON CONFINEMENT AND QUANTUM CENSORSHIP. , 2011, , .		0