

Janos Polonyi

List of Publications by Year in descending order

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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	Renormalizing Open Quantum Field Theories. Universe, 2022, 8, 127.	2.5	3
2	Renormalization in Minkowski space-time. International Journal of Modern Physics A, 2021, 36, 2150031.	1.5	4
3	Tunnelling and dynamical violation of the null energy condition. Physical Review D, 2021, 103, .	4.7	7
4	Macroscopic Limit of Quantum Systems. Universe, 2021, 7, 315.	2.5	1
5	Elementary Open Quantum States. Symmetry, 2021, 13, 1624.	2.2	1
6	Equilibrium properties and decoherence of an open harmonic oscillator. Journal of Physics A: Mathematical and Theoretical, 2020, 53, 235301.	2.1	3
7	The Abraham-Lorentz force and electrodynamics at the classical electron radius. International Journal of Modern Physics A, 2019, 34, 1950077.	1.5	3
8	Boost invariant regulator for field theories. International Journal of Modern Physics A, 2019, 34, 1950017.	1.5	7
9	Instantaneous and dynamical decoherence. Journal of Physics A: Mathematical and Theoretical, 2018, 51, 145302.	2.1	6
10	Euclidean scalar field theory in the bilocal approximation. Physical Review D, 2018, 97, .	4.7	8
11	Time scale of stationary decoherence. Physical Review A, 2017, 96, .	2.5	0
12	Stability and causality of multi-local theories. Europhysics Letters, 2017, 120, 40005.	2.0	6
13	Spontaneous Breakdown of the Time Reversal Symmetry. Symmetry, 2016, 8, 25.	2.2	5
14	Quantum renormalization group. Physical Review D, 2016, 93, .	4.7	12
15	Dissipation and decoherence by a homogeneous ideal gas. Physical Review A, 2015, 92, .	2.5	7
16	Viscosity and dissipative hydrodynamics from effective field theory. Physical Review D, 2015, 91, .	4.7	72
17	Dynamics of the electric current in an ideal electron gas: A sound mode inside the quasiparticles. Physical Review D, 2015, 92, .	4.7	6
18	Irreversibility and decoherence in an ideal gas. Journal of Physics: Conference Series, 2015, 626, 012021.	0.4	1

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19	Effective dynamics of a classical point charge. <i>Annals of Physics</i> , 2014, 342, 239-263.	2.8	11
20	Classical and quantum effective theories. <i>Physical Review D</i> , 2014, 90, .	4.7	16
21	Environment induced time arrow and the Closed Time Path method. <i>Journal of Physics: Conference Series</i> , 2013, 442, 012072.	0.4	0
22	PROTON SCATTERING ON AN ELECTRON GAS. <i>International Journal of Modern Physics A</i> , 2013, 28, 1350091.	1.5	0
23	Yang-Mills-Higgs models with higher order derivatives. <i>Physical Review D</i> , 2012, 86, .	4.7	2
24	Scattering in an environment. <i>Physical Review D</i> , 2012, 85, .	4.7	6
25	Spontaneous breakdown of Lorentz symmetry in scalar QED with higher order derivatives. <i>Physical Review D</i> , 2011, 84, .	4.7	6
26	Dynamical breakdown of time reversal invariance and causality. <i>Physical Review D</i> , 2011, 84, .	4.7	6
27	ONSET OF SYMMETRY BREAKING BY THE FUNCTIONAL RG METHOD. <i>International Journal of Modern Physics A</i> , 2011, 26, 1327-1345.	1.5	19
28	CIRCULAR GEODESICS IN SCHWARZSCHILD-LIKE SPACETIMES. <i>Modern Physics Letters A</i> , 2011, 26, 473-479.	1.2	2
29	GLUON CONFINEMENT AND QUANTUM CENSORSHIP. , 2011, , .		0
30	Quantum censorship in two dimensions. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2010, 694, 89-93.	4.1	18
31	Decoherence and damping in ideal gases. <i>Europhysics Letters</i> , 2010, 91, 67003.	2.0	2
32	Boundary conditions and consistency of effective theories. <i>Physical Review D</i> , 2010, 81, .	4.7	5
33	Subclassical fields and polarization in electrodynamics. <i>Physical Review D</i> , 2010, 82, .	4.7	6
34	Functional Renormalization Group Approach to the Sine-Gordon Model. <i>Physical Review Letters</i> , 2009, 102, 241603.	7.8	43
35	Semiclassical Coulomb field. <i>Physical Review D</i> , 2008, 77, .	4.7	4
36	Generalized universality in the massive sine-Gordon model. <i>Physical Review D</i> , 2008, 77, .	4.7	17

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37	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
38	Casimir effect: running Newton constant or cosmological term. Classical and Quantum Gravity, 2006, 23, 207-224.	4.0	19
39	Effective potential for the massive sine-Gordon model. Journal of Physics A, 2006, 39, 8105-8117.	1.6	12
40	Effective field theory for He4. Physical Review B, 2006, 73, .	3.2	3
41	Quantum-classical crossover in electrodynamics. Physical Review D, 2006, 74, .	4.7	20
42	SPINODAL INSTABILITY AND CONFINEMENT. , 2006, , .		0
43	Running coupling constants of the Luttinger liquid. Physics Letters, Section A: General, Atomic and Solid State Physics, 2005, 347, 191-199.	2.1	0
44	Renormalization group in internal space. Physical Review D, 2005, 71, .	4.7	13
45	Projection method for rapid ab initio calculations of metals. Physical Review B, 2004, 70, .	3.2	4
46	Periodic ground state for the charged massive Schwinger model. Physical Review D, 2004, 70, .	4.7	17
47	One-Dimensional Wigner Crystal?. Acta Physica Hungarica A Heavy Ion Physics, 2004, 19, 247-250.	0.4	2
48	Lectures on the functional renormalization group method. Open Physics, 2003, 1, 1-71.	1.7	152
49	Density-dependent effective action for electron systems. International Journal of Quantum Chemistry, 2003, 92, 181-191.	2.0	0
50	Current-density functional for disordered systems. Physical Review B, 2003, 68, .	3.2	1
51	Effective action and density-functional theory. Physical Review B, 2002, 66, .	3.2	39
52	The Functional Callan-Symanzik Equation for the Coulomb Gas. Annals of Physics, 2002, 296, 214-234.	2.8	7
53	Functional Callan-Symanzik equation for QED. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2002, 531, 316-320.	4.1	30
54	Functional Callan-Symanzik Equations. Annals of Physics, 2001, 288, 37-51.	2.8	43

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55	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
56	Renormalization of composite operators. Physical Review D, 2001, 63, .	4.7	6
57	Fate of the classical false vacuum. Physical Review D, 2000, 62, .	4.7	17
58	Wegner-Houghton equation in low dimensions. Physical Review D, 2000, 61, .	4.7	2
59	Periodic vacuum and particles in two dimensions. Physical Review D, 2000, 61, .	4.7	7
60	Optimization of renormalization group flow. Nuclear Physics B, 2000, 567, 493-514.	2.5	55
61	Antiferromagnetic $\uparrow\downarrow$ 4 model. II. The one-loop renormalization. Physical Review D, 1999, 60, .	4.7	16
62	Antiferromagnetic $\uparrow\downarrow$ 4 model. I. The mean-field solution. Physical Review D, 1999, 60, .	4.7	24
63	MASS PROTECTION VIA TRANSLATIONAL INVARIANCE. Modern Physics Letters A, 1999, 14, 2277-2285.	1.2	0
64	Instability induced renormalization. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1999, 445, 351-356.	4.1	77
65	Path integral for the Dirac equation. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1999, 453, 40-45.	4.1	0
66	Renormalization Group Transformation for the Wave Function. Annals of Physics, 1998, 268, 246-272.	2.8	1
67	Path Integral for Relativistic Equations of Motion. Annals of Physics, 1998, 268, 207-224.	2.8	1
68	Global renormalization group. Physical Review D, 1998, 58, .	4.7	19
69	Anti-ferromagnetic condensate in Yang-Mills theory. Nuclear Physics B, 1997, 486, 315-336.	2.5	12
70	Renormalisation Group Aided Finite Temperature Reduction of Quantum Field Theories. Annals of Physics, 1996, 247, 78-105.	2.8	5
71	Renormalization Group in Quantum Mechanics. Annals of Physics, 1996, 252, 300-328.	2.8	15
72	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

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73	Compressing gluons. Nuclear Physics, Section B, Proceedings Supplements, 1995, 42, 544-546.	0.4	1
74	Renormalization group and continuum limit in Quantum Mechanics. Nuclear Physics, Section B, Proceedings Supplements, 1995, 42, 926-928.	0.4	2
75	Renormalization group and universality. Physical Review D, 1995, 51, 4474-4493.	4.7	26
76	Quantum and thermal fluctuations in field theory. Physical Review D, 1995, 51, 748-764.	4.7	24
77	Instantons in cutoff theories. Nuclear Physics B, 1995, 433, 99-122.	2.5	5
78	Physics of the quark-gluon plasma. Acta Physica Hungarica A Heavy Ion Physics, 1995, 2, 123-135.	0.4	1
79	Mass generation at finite temperature. Nuclear Physics A, 1994, 570, 203-209.	1.5	3
80	Blocking Transformation in Field Theory. Annals of Physics, 1993, 222, 122-156.	2.8	42
81	Thermodynamics of Quarks. Annals of Physics, 1993, 227, 76-96.	2.8	13
82	QCD at high temperature. Nuclear Physics A, 1992, 544, 523-526.	1.5	3
83	An effective theory for the QCD vacuum. Nuclear Physics B, 1991, 367, 675-708.	2.5	25
84	Non-perturbative effects in QED with chemical potential. Nuclear Physics B, 1991, 362, 599-615.	2.5	3
85	Topology renormalized. Nuclear Physics, Section B, Proceedings Supplements, 1991, 20, 32-35.	0.4	1
86	ANOMALOUS TOPOLOGICAL CURRENT IN THE NONLINEAR SIGMA MODEL. International Journal of Modern Physics A, 1991, 06, 1267-1286.	1.5	8
87	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
88	The Higgs phase of QCD. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1990, 240, 183-187.	4.1	15
89	THE CONFINEMENT-DECONFINEMENT MECHANISM. Advanced Series on Directions in High Energy Physics, 1990, , 1-60.	0.7	3
90	Confinement and spin-statistics in the deconfined phase. Nuclear Physics A, 1989, 498, 449-453.	1.5	0

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91	Spin-statistics for lattice QCD. Nuclear Physics, Section B, Proceedings Supplements, 1989, 9, 614-617.	0.4	1
92	Gauge symmetry and quark confinement. Nuclear Physics, Section B, Proceedings Supplements, 1989, 6, 393-394.	0.4	0
93	Confinement and spin-statistics for triality. Physica A: Statistical Mechanics and Its Applications, 1989, 158, 158-168.	2.6	0
94	Confinement of triality. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1988, 213, 340-346.	4.1	14
95	Meson structure in QCD2. Nuclear Physics B, 1988, 307, 669-704.	2.5	36
96	Lattice \hat{L}_4 theory with Yukawa couplings to staggered fermions. Physical Review D, 1988, 38, 3231-3237.	4.7	17
97	Quasiparticles and spin-statistics in the deconfined phase. , 1988, , .		2
98	Nonperturbative length scale in high-temperature QCD. Physical Review Letters, 1987, 58, 847-850.	7.8	121
99	Effective potential in scalar field theory. Physical Review D, 1987, 35, 3187-3192.	4.7	24
100	Chromomagnetism and quasiparticles at finite temperature. Nuclear Physics A, 1987, 461, 279-286.	1.5	33
101	On the thermodynamics and scaling behaviour of SU(2) gauge theory with fermion feedback. Nuclear Physics B, 1986, 265, 293-302.	2.5	13
102	Microcanonical study of the planar spin model. Nuclear Physics B, 1986, 265, 313-323.	2.5	22
103	On the fermion mass and lattice size dependence of SU(2) gauge theory thermodynamics. Nuclear Physics B, 1986, 270, 155-168.	2.5	0
104	Thermodynamics of SU(2) gauge theory with dynamical, light fermions. Physical Review D, 1985, 31, 3307-3309.	4.7	6
105	Crossover from strong to weak coupling in lattice gauge theory with dynamical fermions. Physical Review D, 1985, 31, 3304-3306.	4.7	6
106	Simulations and Speculations on Gauge Theories with Many Fermions. Physical Review Letters, 1985, 54, 1475-1478.	7.8	55
107	Hierarchical Mass Scales in Lattice Gauge Theories with Dynamical, Light Fermions. Physical Review Letters, 1985, 54, 1980-1982.	7.8	40
108	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

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109	Microcanonical simulation of a toy model with vacuum seizing. Nuclear Physics B, 1985, 251, 333-352.	2.5	4
110	Finite-Temperature Phase Transitions in SU(3) Lattice Gauge Theory with Dynamical, Light Fermions. Physical Review Letters, 1984, 53, 644-647.	7.8	152
111	Topological charge of lattice gauge theories. Physical Review D, 1984, 29, 716-721.	4.7	8
112	MICROCANONICAL SIMULATION OF FERMIONIC SYSTEMS. Physical Review Letters, 1984, 52, 401-401.	7.8	8
113	A micro canonical method for fermionic systems. Nuclear Physics A, 1984, 418, 491-498.	1.5	4
114	Phase transition of the nucleon-antinucleon plasma in a relativistic mean-field theory. Physical Review D, 1983, 28, 2286-2290.	4.7	107
115	Microcanonical Simulation of Fermionic Systems. Physical Review Letters, 1983, 51, 2257-2260.	7.8	142
116	Phase transition from strong-coupling expansion. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1982, 110, 395-398.	4.1	141
117	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