Lawrence Horwitz

List of Publications by Year
in descending order

96 papers	1,459 citations	304743 22 h-index	345221 36 g-index
98 all docs	98 docs citations	98 times ranked	221 citing authors

#	Article	IF	Citations
1	Entropy Bounds: New Insights. Symmetry, 2022, 14, 126.	2.2	0
2	Raychaudhuri Equation, Geometrical Flows and Geometrical Entropy. Symmetry, 2021, 13, 957.	2.2	9
3	Spin and entanglement in general relativity. Journal of Physics: Conference Series, 2021, 1956, 012009.	0.4	1
4	Spin and entanglement in general relativity. European Physical Journal Plus, 2021, 136, 1.	2.6	2
5	The Relativistic Boltzmann Equation and Two Times. Entropy, 2020, 22, 804.	2.2	3
6	Fourier transform, quantum mechanics and quantum field theory on the manifold of general relativity. European Physical Journal Plus, 2020, 135, 1.	2.6	8
7	Canonical Transformation of Potential Model Hamiltonian Mechanics to Geometrical Form I. Symmetry, 2020, 12, 1009.	2.2	0
8	Stueckelberg-Horwitz-Piron Canonical Quantum Theory in General Relativity and Bekenstein-Sanders Gauge Fields for TeVeS. , 2020, , .		1
9	Symmetry of the Relativistic Two-Body Bound State. Symmetry, 2020, 12, 313.	2.2	0
10	Geometry of quantum Riemannian Hamiltonian evolution. Journal of Mathematical Physics, 2019, 60, 072102.	1.1	0
11	An elementary canonical classical and quantum dynamics for general relativity. European Physical Journal Plus, 2019, 134, 1.	2.6	20
12	Relativistic entanglement. Physics Letters, Section A: General, Atomic and Solid State Physics, 2018, 382, 1701-1708.	2.1	5
13	Entropy Measures as Geometrical Tools in the Study of Cosmology. Entropy, 2018, 20, 6.	2.2	3
14	Second quantization of a covariant relativistic spacetime string in Steuckelbergâ€“Horwitzâ€“Piron theory. Frontiers of Physics, 2017, 12, 1.	5.0	2
15	An underlying geometrical manifold for Hamiltonian mechanics. Frontiers of Physics, 2017, 12, 1.	5.0	4
16	Criterion for stability of a special relativistically covariant dynamical system. Journal of Physics A: Mathematical and Theoretical, 2017, 50, 125202.	2.1	0
17	Induced representations of tensors and spinors of any rank in the Stueckelberg-Horwitz-Piron theory. Journal of Mathematical Physics, 2015, 56, 092301.	1.1	3
18	Quantum field theory of classically unstable Hamiltonian dynamics. Journal of Mathematical Physics, 2015, 56, 072701.	1.1	7

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19	Uncertainty relation for chaos. International Journal of Geometric Methods in Modern Physics, 2015, 12, 1550093.	2.0	2
20	Relativistic Quantum Mechanics. Fundamental Theories of Physics, 2015, , .	0.3	36
21	Lorentz Invariant Berry Phase for a Perturbed Relativistic Four Dimensional Harmonic Oscillator. Foundations of Physics, 2014, 44, 1156-1167.	1.3	0
22	Neutrino oscillations in Stueckelberg semiclassical relativistic dynamics. Journal of Physics: Conference Series, 2013, 437, 012021.	0.4	1
23	Spin, angular momentum and spin-statistics for a relativistic quantum many-body system. Journal of Physics A: Mathematical and Theoretical, 2013, 46, 035305.	2.1	4
24	Reconstruction of the environmental correlation function from single-emitter photon statistics: A non-Markovian approach. Physical Review A, 2013, 87, .	2.5	0
25	On the geometric formulation of Hamiltonian dynamics. Chaos, 2013, 23, 013120.	2.5	3
26	Radiation-reaction in classical off-shell electrodynamics. I. The above mass-shell case. Journal of Mathematical Physics, 2012, 53, 032902.	1.1	11
27	Gravitational repulsion within a black hole using the Stueckelberg quantum formalism. Journal of Mathematical Physics, 2011, 52, 012303.	1.1	7
28	Study of a self-adjoint operator indicating the direction of time within standard quantum mechanics. Comptes Rendus Mathematique, 2011, 349, 1117-1122.	0.3	7
29	Hamiltonian Map to Conformal Modification ofÂSpacetime Metric: Kaluza-Klein and TeVeS. Foundations of Physics, 2011, 41, 141-157.	1.3	13
30	Preface IARD 2008 Proceedings. Foundations of Physics, 2011, 41, 1-3.	1.3	3
31	Transition Decomposition of Quantum Mechanical Evolution. International Journal of Theoretical Physics, 2011, 50, 2179-2190.	1.2	3
32	Semigroup evolution in the Wigner-Weisskopf pole approximation with Markovian spectral coupling. Physical Review A, 2011, 84, .	2.5	0
33	SUBTLE IS THE LORD: ON THE DIFFERENCE BETWEEN NEWTONIAN (LYAPUNOV) STABILITY ANALYSIS AND GEOMETRICAL STABILITY ANALYSIS OF GRAVITATIONAL ORBITS. International Journal of Modern Physics D, 2011, 20, 2787-2793.	2.1	2
34	COVARIANT RELATIVISTIC DYNAMICS AND THE CONCEPT OF TIME. Modern Physics Letters A, 2011, 26, 1681-1696.	1.2	1
35	On the Green-functions of the classical off-shell electrodynamics under the manifestly covariant relativistic dynamics of Stueckelberg. Journal of Mathematical Physics, 2011, 52, 082901.	1.1	4
36	Radiation fields of a uniformly accelerating point source in the framework of Stueckelbergâ€™s manifestly covariant relativistic dynamics. Journal of Mathematical Physics, 2010, 51, 052903.	1.1	4

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37	Simulation of the Radiation Reaction Orbits of a Classical Relativistic Charged Particle with Generalized Off-Shell Lorentz Force. Discrete Dynamics in Nature and Society, 2010, 2010, 1-36.	0.9	3
38	Kaluzaâ€“Klein theory as a dynamics in a dual geometry. Journal of Mathematical Physics, 2009, 50, 102704.	1.1	13
39	Energy gaps in a spacetime crystal. Physics Letters, Section A: General, Atomic and Solid State Physics, 2009, 374, 40-43.	2.1	4
40	Applications of geometrical criteria for transition to Hamiltonian chaos. Physical Review E, 2008, 78, 036209.	2.1	17
41	Geometry of Hamiltonian Chaos. Physical Review Letters, 2007, 98, 234301.	7.8	39
42	Detecting order and chaos in three-dimensional Hamiltonian systems by geometrical methods. Physical Review E, 2007, 76, 046220.	2.1	18
43	Time, Irreversibility, and Unstable Systems in Quantum Physics. Advances in Chemical Physics, 2007, , 245-297.	0.3	1
44	Quantum Interference in Time. Foundations of Physics, 2007, 37, 734-746.	1.3	8
45	On the significance of a recent experiment demonstrating quantum interference in time. Physics Letters, Section A: General, Atomic and Solid State Physics, 2006, 355, 1-6.	2.1	27
46	Green functions for wave propagation on a five-dimensional manifold and the associated gauge fields generated by a uniformly moving point source. Journal of Mathematical Physics, 2006, 47, 122902.	1.1	9
47	Relativistic Brownian Motion and Gravity as an Eikonal Approximation to a Quantum Evolution Equation. Foundations of Physics, 2005, 35, 1181-1203.	1.3	16
48	Eikonal approximation to 5D wave equations as geodesic motion in a curved 4D spacetime. General Relativity and Gravitation, 2005, 37, 491-506.	2.0	3
49	Could the classical relativistic electron be a strange attractor?. Discrete Dynamics in Nature and Society, 2004, 2004, 179-204.	0.9	1
50	The Conformal Metric Associated with the U(1) Gauge of the Stueckelbergâ€“SchrÃ¶dinger Equation. Foundations of Physics, 2003, 33, 1177-1187.	1.3	0
51	Eikonal Approximation to 5D Wave Equations and the 4D Space-Time Metric. Foundations of Physics, 2003, 33, 1323-1338.	1.3	3
52	Energy Mechanism of Charges Analyzed in Real Current Environment. Foundations of Physics Letters, 2003, 16, 225-244.	0.6	3
53	Laxâ€“Phillips scattering theory of a relativistic quantum field theoretical Leeâ€“Friedrichs model and Leeâ€“Oehmeâ€“Yangâ€“Wu phenomenology. Journal of Mathematical Physics, 2002, 43, 2394.	1.1	4
54	Relativistic Notion of Mass and a Resolution of a Conflict Between Schopenhauer and Hegel. Foundations of Physics, 2002, 32, 963-979.	1.3	0

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55	Self-force of a charge in a real current. Foundations of Physics Letters, 2002, 15, 551-559.	0.6	5
56	Dynamical effects of a one-dimensional multibarrier potential of finite range. European Physical Journal B, 2002, 25, 505-518.	1.5	2
57	Classical radiation reaction off-shell corrections to the covariant Lorentz force. Physics Letters, Section A: General, Atomic and Solid State Physics, 2001, 280, 265-270.	2.1	12
58	Representation of the resonances of a relativistic quantum field theoretical model in Laxâ€“Phillips scattering theory. Chaos, Solitons and Fractals, 2001, 12, 2747-2756.	5.1	0
59	Title is missing!. Foundations of Physics, 2001, 31, 849-854.	1.3	0
60	The Covariant Stark Effect. Foundations of Physics, 2001, 31, 967-991.	1.3	14
61	Relativistic Mechanics of Continuous Media. Foundations of Physics, 2001, 31, 909-934.	1.3	1
62	Radiation Reaction of the Classical Off-Shell Relativistic Charged Particle. Foundations of Physics, 2001, 31, 951-966.	1.3	3
63	Space Zeno Effect. International Journal of Theoretical Physics, 2001, 40, 1697-1713.	1.2	3
64	Title is missing!. Foundations of Physics, 2000, 30, 653-694.	1.3	11
65	Representation of quantum mechanical resonances in the Laxâ€“Phillips Hilbert space. Journal of Mathematical Physics, 2000, 41, 8050-8071.	1.1	23
66	Second Quantization of the Stueckelberg Relativistic Quantum Theory and Associated Gauge Fields. Foundations of Physics, 1998, 28, 1509-1519.	1.3	10
67	Schwinger algebra for quaternionic quantum mechanics. Foundations of Physics, 1997, 27, 1011-1034.	1.3	4
68	Hypercomplex quantum mechanics. Foundations of Physics, 1996, 26, 851-862.	1.3	7
69	The unstable system in relativistic quantum mechanics. Foundations of Physics, 1995, 25, 39-65.	1.3	17
70	On Feynmanâ€™s approach to the foundations of gauge theory. Journal of Mathematical Physics, 1995, 36, 3263-3288.	1.1	49
71	Chaoticlike Behavior in a Quantum System without Classical Counterpart. Physical Review Letters, 1995, 75, 1070-1073.	7.8	27
72	Canonical quantization of four- and five-dimensional U(1) gauge theories. Physical Review A, 1993, 48, 4068-4074.	2.5	41

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73	Self-force of a classical charged particle. Physical Review A, 1992, 45, 4346-4354.	2.5	5
74	Uniqueness of the scalar product in the tensor product of quaternion Hilbert modules. Journal of Mathematical Physics, 1992, 33, 3098-3104.	1.1	17
75	Classical mechanics of special relativity in a Riemannian spaceâ€time. Journal of Mathematical Physics, 1991, 32, 1788-1795.	1.1	6
76	The Lorentz force and energy-momentum for off-shell electromagnetism. Foundations of Physics Letters, 1991, 4, 61-71.	0.6	28
77	The quantum relativistic twoâ€body bound state. II. The induced representation of SL(2,C). Journal of Mathematical Physics, 1989, 30, 380-392.	1.1	56
78	The quantum relativistic twoâ€body bound state. I. The spectrum. Journal of Mathematical Physics, 1989, 30, 66-80.	1.1	68
79	Relativistic potential scattering and phase shift analysis. Journal of Mathematical Physics, 1989, 30, 213-218.	1.1	30
80	A manifestly covariant relativistic Boltzmann equation for the evolution of a system of events. Physica A: Statistical Mechanics and Its Applications, 1989, 161, 300-338.	2.6	67
81	Off-shell electromagnetism in manifestly covariant relativistic quantum mechanics. Foundations of Physics, 1989, 19, 1125-1149.	1.3	64
82	The Landau-Peierls relation and a causal bound in covariant relativistic quantum theory. Foundations of Physics, 1985, 15, 701-715.	1.3	29
83	Chiral two-component spinors and the factorization of Kramers's equation. Foundations of Physics, 1984, 14, 953-961.	1.3	10
84	A partial inner product space of analytic functions for resonances. Journal of Mathematical Physics, 1983, 24, 848-859.	1.1	9
85	Scattering theory in relativistic quantum mechanics. Physical Review D, 1982, 26, 819-838.	4.7	54
86	On relativistic quantum theory for particles with spin1/2. Journal of Physics A, 1982, 15, L659-L662.	1.6	24
87	Gibbs ensembles in relativistic classical and quantum mechanics. Annals of Physics, 1981, 137, 306-340.	2.8	90
88	Constraint relativistic quantum dynamics. Physical Review D, 1981, 24, 1528-1542.	4.7	70
89	Nonrelativistic limit of relativistic quantum mechanics. Physical Review D, 1981, 24, 2127-2131.	4.7	33
90	Relativistic diffraction. Lettere Al Nuovo Cimento Rivista Internazionale Della SocietÃ Italiana Di Fisica, 1976, 17, 501-507.	0.4	25

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91	Charges as null plane integrals over tensor densities. Letters in Mathematical Physics, 1976, 1, 147-154.	1.1	3
92	On the orthogonality of K0-meson nonleptonic weak-decay residues. Il Nuovo Cimento A, 1974, 21, 625-638.	0.2	9
93	The Inverse Decay Problem. Journal of Mathematical Physics, 1971, 12, 2537-2543.	1.1	71
94	The decay-scattering system. Rocky Mountain Journal of Mathematics, 1971, 1, 225.	0.4	104
95	Energy dependence of total cross-sections in the CHKN model. Il Nuovo Cimento A, 1969, 59, 237-247.	0.2	4
96	On the unitarity sum rule for the Ko decays andCPT violation. Il Nuovo Cimento A, 1968, 57, 863-869.	0.2	6