

Franco Strocchi

List of Publications by Year in descending order

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67
papers

1,576
citations

430754

18
h-index

302012

39
g-index

69
all docs

69
docs citations

69
times ranked

402
citing authors

#	ARTICLE	IF	CITATIONS
1	Proof of the charge superselection rule in local relativistic quantum field theory. Journal of Mathematical Physics, 1974, 15, 2198-2224.	0.5	299
2	Complex Coordinates and Quantum Mechanics. Reviews of Modern Physics, 1966, 38, 36-40.	16.4	135
3	Charged sectors and scattering states in quantum electrodynamics. Annals of Physics, 1979, 119, 241-284.	1.0	106
4	Gauge Problem in Quantum Field Theory. Physical Review, 1967, 162, 1429-1438.	2.7	75
5	Some remarks on local operators in quantum electrodynamics. Communications in Mathematical Physics, 1974, 35, 25-38.	1.0	71
6	Local and covariant gauge quantum field theories. Cluster property, superselection rules, and the infrared problem. Physical Review D, 1978, 17, 2010-2021.	1.6	67
7	Spontaneous symmetry breaking in local gauge quantum field theory; the Higgs mechanism. Communications in Mathematical Physics, 1977, 56, 57-78.	1.0	65
8	Mathematical structures for long-range dynamics and symmetry breaking. Journal of Mathematical Physics, 1987, 28, 622-635.	0.5	49
9	Infrared and vacuum structure in two-dimensional local quantum field theory models. The massless scalar field. Journal of Mathematical Physics, 1990, 31, 1467-1477.	0.5	46
10	Wigner's theorem on symmetries in indefinite metric spaces. Communications in Mathematical Physics, 1975, 41, 289-299.	1.0	44
11	Gauge Independence and Path Independence. Physical Review, 1965, 139, B476-B482.	2.7	40
12	The Schwinger model revisited. Annals of Physics, 1988, 188, 217-238.	1.0	39
13	Infrared singular fields and nonregular representations of canonical commutation relation algebras. Journal of Mathematical Physics, 1993, 34, 899-914.	0.5	35
14	Spontaneous symmetry breaking and energy gap generated by variables at infinity. Communications in Mathematical Physics, 1985, 99, 153-175.	1.0	32
15	Gauge Problem in Quantum Field Theory. III. Quantization of Maxwell Equations and Weak Local Commutativity. Physical Review D, 1970, 2, 2334-2340.	1.6	27
16	Spontaneous Breakings of Chiral Symmetries. II. Mass Relations and Particle Mixings. Physical Review D, 1972, 6, 301-318.	1.6	24
17	Euclidean formulation of quantum field theory without positivity. Communications in Mathematical Physics, 1988, 119, 529-541.	1.0	20
18	Irreducible representations of the Heisenberg algebra in Krein spaces. Journal of Mathematical Physics, 1998, 39, 2969-2982.	0.5	18

#	ARTICLE	IF	CITATIONS
19	Gauge Problem in Quantum Field Theory. II. Difficulties of Combining Einstein Equations and Wightman Theory. <i>Physical Review</i> , 1968, 166, 1302-1307.	2.7	17
20	Spontaneous Breakdown of Chiral $su(3) \times su(3)$ Symmetry. <i>Physical Review Letters</i> , 1969, 22, 497-499.	2.9	17
21	Precise Test of SU(2) Chiral Breaking. A Coleman-Glashow Formula for Pseudoscalar Mesons. <i>Physical Review Letters</i> , 1972, 29, 1702-1704.	2.9	17
22	Quantum Delocalization of the Electric Charge. <i>Annals of Physics</i> , 2001, 290, 53-66.	1.0	15
23	Quantum corrections to the Wigner crystal: A Hartree-Fock expansion. <i>Physical Review B</i> , 1993, 48, 5306-5314.	1.1	14
24	Spontaneous Breakings of Chiral Symmetries. <i>Physical Review D</i> , 1970, 1, 1197-1203.	1.6	13
25	Hilbert space sectors for solutions of non-linear relativistic field equations. <i>Communications in Mathematical Physics</i> , 1977, 53, 65-96.	1.0	13
26	Spontaneous breaking of the Galilei group and the plasmon energy gap. <i>Annals of Physics</i> , 1986, 170, 310-332.	1.0	13
27	Long-range dynamics and broken symmetries in gauge models. The Schwinger model. <i>Journal of Mathematical Physics</i> , 1987, 28, 1912-1919.	0.5	13
28	Relativistic Quantum Mechanics and Field Theory. <i>Foundations of Physics</i> , 2004, 34, 501-527.	0.6	13
29	Infrared and vacuum structure in two-dimensional models of local quantum field theory. II. Fermion bosonization. <i>Journal of Mathematical Physics</i> , 1992, 33, 777-790.	0.5	12
30	Charge density and electric charge in quantum electrodynamics. <i>Journal of Mathematical Physics</i> , 2003, 44, 5569.	0.5	12
31	Grassmanian and chiral anomaly. <i>Journal of Geometry and Physics</i> , 1997, 22, 219-244.	0.7	11
32	Confinement of massless charged particles in QED4 and of charged particles in QED3. <i>Annals of Physics</i> , 1986, 172, 267-279.	1.0	10
33	T-Violation Effects and Final-State Interactions. <i>Physical Review</i> , 1968, 174, 1957-1968.	2.7	9
34	Extension of Jost and Schroer's Theorem to Quantum Electrodynamics. <i>Physical Review D</i> , 1972, 6, 1193-1195.	1.6	9
35	Krein structures for Wightman and Schwinger functions. <i>Journal of Mathematical Physics</i> , 1988, 29, 1231-1235.	0.5	9
36	A Quantum Mechanical Gauge Model and a Possible Dynamical Solution of the Strong CP Problem. <i>Annals of Physics</i> , 1996, 250, 367-388.	1.0	9

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37	Mathematical structure of the temporal gauge in quantum electrodynamics. <i>Journal of Mathematical Physics</i> , 2003, 44, 5095-5107.	0.5	9
38	The physical principles of quantum mechanics. A critical review. <i>European Physical Journal Plus</i> , 2012, 127, 1.	1.2	9
39	T-Violation Effects and Final-State Interactions. II. Photoproduction, Electroproduction, and Neutrino-Induced Production of a Single Pion. <i>Physical Review D</i> , 1970, 1, 191-199.	1.6	8
40	Neutral currents in gauge theories. <i>Physical Review D</i> , 1978, 18, 2062-2064.	1.6	8
41	Long range dynamics and broken symmetries in gauge models. The Stüeckelberg-Kibble model. <i>Communications in Mathematical Physics</i> , 1987, 111, 593-612.	1.0	8
42	Quantum Mechanics on Manifolds and Topological Effects. <i>Letters in Mathematical Physics</i> , 2007, 82, 219-236.	0.5	8
43	Local and Covariant Quantization of Linearized Einstein's Equations. <i>Journal of Mathematical Physics</i> , 1972, 13, 1151-1163.	0.5	6
44	Infrared problem in QED and electric charge renormalization. <i>Annals of Physics</i> , 1986, 168, 27-45.	1.0	6
45	Nonregular representations of CCR algebras and algebraic fermion bosonization. <i>Reports on Mathematical Physics</i> , 1993, 33, 7-19.	0.4	6
46	The Infrared Problem in QED: A Lesson from a Model with Coulomb Interaction and Realistic Photon Emission. <i>Annales Henri Poincaré</i> , 2016, 17, 2699-2739.	0.8	6
47	Localization and symmetries. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2007, 40, 3173-3187.	0.7	5
48	Effective non-symmetric Hamiltonians and Goldstone boson spectrum. <i>Annals of Physics</i> , 1988, 185, 241-269.	1.0	4
49	The classical counterpart of the Goldstone theorem. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2000, 267, 40-44.	0.9	4
50	A non-perturbative argument for the non-abelian Higgs mechanism. <i>Annals of Physics</i> , 2013, 336, 112-117.	1.0	4
51	Possible Test of T-Invariance Violation in Electromagnetic Interactions. <i>Physical Review Letters</i> , 1966, 16, 633-635.	2.9	3
52	TCPIvariance and $K^0 \rightarrow 2\pi$ Decays. <i>Physical Review Letters</i> , 1967, 19, 1456-1458.	2.9	3
53	Einstein's equations and locality. <i>Communications in Mathematical Physics</i> , 1972, 24, 289-302.	1.0	3
54	The Lie-Rinehart Universal Poisson Algebra of Classical and Quantum Mechanics. <i>Letters in Mathematical Physics</i> , 2008, 86, 135-150.	0.5	3

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55	Chiral symmetry breaking and \hat{L} vacuum structure in OCD. Annals of Physics, 2009, 324, 2236-2254.	1.0	3
56	Local and covariant quantizations of linearized Einstein's equations. II. Journal of Mathematical Physics, 1975, 16, 2522-2526.	0.5	2
57	Classical and quantum mechanics from the universal Poisson-Rinehart algebra of a manifold. Reports on Mathematical Physics, 2009, 64, 33-48.	0.4	2
58	Dynamics of Dollard asymptotic variables. Asymptotic fields in Coulomb scattering. Reviews in Mathematical Physics, 2016, 28, 1650001.	0.7	2
59	Generalized criteria of symmetry breaking. A strategy for quantum time crystals. Annals of Physics, 2020, 415, 168097.	1.0	2
60	Goldstone's Theorem and Approximate Symmetries in Strong Interactions. Physical Review Letters, 1966, 16, 822-824.	2.9	1
61	Gauge Invariance and Symmetry Breaking by Topology and Energy Gap. Mathematics, 2015, 3, 984-1000.	1.1	1
62	Mass Gap and Violation of Discrete Symmetries in Quantum Field Theory. Physical Review, 1966, 152, 1505-1507.	2.7	0
63	Corrections to Wigner-Eckart Relations by Spontaneous Symmetry Breaking. Symmetry, 2020, 12, 1120.	1.1	0
64	Spontaneous symmetry breaking. , 2019, , 1-23.		0
65	Breaking gauge symmetries. Higgs mechanism. , 2019, , 25-66.		0
66	Manifold topology, observables, and gauge group. Journal of Mathematical Physics, 2021, 62, 112102.	0.5	0
67	Some rigorous results on symmetry breakings in gauge QFT. SciPost Physics Proceedings, 2022, , .	0.2	0