

# V Alan Kostelecká<sup>1/2</sup>

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/9627018/publications.pdf>

Version: 2024-02-01

81  
papers

16,496  
citations

41627

51  
h-index

111975

67  
g-index

82  
all docs

82  
docs citations

82  
times ranked

6424  
citing authors

#	ARTICLE	IF	CITATIONS
1	Lorentz-violating extension of the standard model. <i>Physical Review D</i> , 1998, 58, .	1.6	1,857
2	CPT violation and the standard model. <i>Physical Review D</i> , 1997, 55, 6760-6774.	1.6	1,442
3	Spontaneous breaking of Lorentz symmetry in string theory. <i>Physical Review D</i> , 1989, 39, 683-685.	1.6	1,141
4	Gravity, Lorentz violation, and the standard model. <i>Physical Review D</i> , 2004, 69, .	1.6	1,005
5	Data tables for Lorentz and $CPT$ violation. <i>Reviews of Modern Physics</i> , 2011, 83, 11-31.	16.4	978
6	Noncommutative Field Theory and Lorentz Violation. <i>Physical Review Letters</i> , 2001, 87, 141601.	2.9	764
7	Signals for Lorentz violation in electrodynamics. <i>Physical Review D</i> , 2002, 66, .	1.6	651
8	CPT and strings. <i>Nuclear Physics B</i> , 1991, 359, 545-570.	0.9	513
9	Stability, causality, and Lorentz and CPT violation. <i>Physical Review D</i> , 2001, 63, .	1.6	437
10	CPT, strings, and meson factories. <i>Physical Review D</i> , 1995, 51, 3923-3935.	1.6	427
11	Electrodynamics with Lorentz-violating operators of arbitrary dimension. <i>Physical Review D</i> , 2009, 80, .	1.6	410
12	Radiatively Induced Lorentz and CPT Violation in Electrodynamics. <i>Physical Review Letters</i> , 1999, 82, 3572-3575.	2.9	396
13	Signals for Lorentz violation in post-Newtonian gravity. <i>Physical Review D</i> , 2006, 74, .	1.6	340
14	Constraints on Lorentz violation from clock-comparison experiments. <i>Physical Review D</i> , 1999, 60, .	1.6	324
15	CPT and Lorentz Tests in Hydrogen and Antihydrogen. <i>Physical Review Letters</i> , 1999, 82, 2254-2257.	2.9	299
16	Spontaneous Lorentz violation, Nambu-Goldstone modes, and gravity. <i>Physical Review D</i> , 2005, 71, .	1.6	297
17	Matter-gravity couplings and Lorentz violation. <i>Physical Review D</i> , 2011, 83, .	1.6	266
18	Neutrinos with Lorentz-violating operators of arbitrary dimension. <i>Physical Review D</i> , 2012, 85, .	1.6	238

#	ARTICLE	IF	CITATIONS
19	CPT and Lorentz tests in Penning traps. <i>Physical Review D</i> , 1998, 57, 3932-3943.	1.6	221
20	One-loop renormalization of Lorentz-violating electrodynamics. <i>Physical Review D</i> , 2002, 65, .	1.6	211
21	CPT and Lorentz Tests with Muons. <i>Physical Review Letters</i> , 2000, 84, 1098-1101.	2.9	206
22	Clock-Comparison Tests of Lorentz and CPT Symmetry in Space. <i>Physical Review Letters</i> , 2002, 88, 090801.	2.9	206
23	Testing CPT with Anomalous Magnetic Moments. <i>Physical Review Letters</i> , 1997, 79, 1432-1435.	2.9	200
24	Constraints on Torsion from Bounds on Lorentz Violation. <i>Physical Review Letters</i> , 2008, 100, 111102.	2.9	194
25	Nonrelativistic quantum Hamiltonian for Lorentz violation. <i>Journal of Mathematical Physics</i> , 1999, 40, 6245-6253.	0.5	193
26	Sensitive Polarimetric Search for Relativity Violations in Gamma-Ray Bursts. <i>Physical Review Letters</i> , 2006, 97, 140401.	2.9	189
27	Fermions with Lorentz-violating operators of arbitrary dimension. <i>Physical Review D</i> , 2013, 88, .	1.6	187
28	Lorentz and CPT Tests with Spin-Polarized Solids. <i>Physical Review Letters</i> , 2000, 84, 1381-1384.	2.9	186
29	Riemannian Finsler geometry and Lorentz-violating kinematics. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2011, 701, 137-143.	1.5	183
30	Prospects for Large Relativity Violations in Matter-Gravity Couplings. <i>Physical Review Letters</i> , 2009, 102, 010402.	2.9	182
31	Lorentz-Violating Electrodynamics and the Cosmic Microwave Background. <i>Physical Review Letters</i> , 2007, 99, 011601.	2.9	160
32	Probing Lorentz and CPT violation with space-based experiments. <i>Physical Review D</i> , 2003, 68, .	1.6	154
33	Spontaneous Lorentz and diffeomorphism violation, massive modes, and gravity. <i>Physical Review D</i> , 2008, 77, .	1.6	138
34	Bound on Lorentz and CPT Violating Boost Effects for the Neutron. <i>Physical Review Letters</i> , 2004, 93, 230801.	2.9	119
35	Vacuum Photon Splitting in Lorentz-Violating Quantum Electrodynamics. <i>Physical Review Letters</i> , 2003, 91, 031801.	2.9	104
36	Gravity from spontaneous Lorentz violation. <i>Physical Review D</i> , 2009, 79, .	1.6	100

#	ARTICLE	IF	CITATIONS
37	Lorentz violation with an antisymmetric tensor. Physical Review D, 2010, 81, .	1.6	98
38	Short-range gravity and Lorentz violation. Physical Review D, 2015, 91, .	1.6	98
39	Bipartite Riemann-Finsler geometry and Lorentz violation. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2012, 716, 470-474.	1.5	95
40	Perturbative Lorentz and $C$ - $P$ - $T$ violation for neutrino and antineutrino oscillations. Physical Review D, 2009, 80, .	1.6	93
41	Off-Shell Structure of the String Sigma Model. Physical Review Letters, 2000, 84, 4541-4544.	2.9	85
42	Lorentz and $C$ - $P$ - $T$ tests with hydrogen, antihydrogen, and related systems. Physical Review D, 2015, 92, .	1.6	85
43	Classical kinematics for Lorentz violation. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2010, 693, 443-447.	1.5	83
44	Constraints on Relativity Violations from Gamma-Ray Bursts. Physical Review Letters, 2013, 110, 201601.	2.9	82
45	Lorentz-violating spinor electrodynamics and Penning traps. Physical Review D, 2016, 94, .	1.6	79
46	Gravity from local Lorentz violation. General Relativity and Gravitation, 2005, 37, 1675-1679.	0.7	78
47	Testing relativity with high-energy astrophysical neutrinos. Physical Review D, 2014, 89, .	1.6	71
48	Gauge field theories with Lorentz-violating operators of arbitrary dimension. Physical Review D, 2019, 99, .	1.6	66
49	Riemann-Finsler geometry and Lorentz-violating scalar fields. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2018, 786, 319-326.	1.5	65
50	Backgrounds in gravitational effective field theory. Physical Review D, 2021, 103, .	1.6	55
51	Laboratory tests of Lorentz and $C$ - $P$ - $T$ symmetry with muons. Physical Review D, 2014, 90, .	1.6	55
52	Lorentz and diffeomorphism violations in linearized gravity. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2018, 779, 136-142.	1.5	51
53	Combined Search for Lorentz Violation in Short-Range Gravity. Physical Review Letters, 2016, 117, 071102.	2.9	44
54	Testing local Lorentz invariance with short-range gravity. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2017, 766, 137-143.	1.5	39

#	ARTICLE	IF	CITATIONS
55	Lorentz and $CPT$ tests with clock-comparison experiments. Physical Review D, 2018, 98, .	1.6	39
56	Constraints on nonmetricity from bounds on Lorentz violation. Physical Review D, 2017, 95, .	1.6	32
57	Revival structure of Stark wave packets. Physical Review A, 1997, 55, 819-822.	1.0	29
58	Radial Coulomb and oscillator systems in arbitrary dimensions. Journal of Mathematical Physics, 1996, 37, 2166-2181.	0.5	28
59	NULL EXPERIMENTS FOR NEUTRINO MASSES. Modern Physics Letters A, 1992, 07, 467-476.	0.5	24
60	Combined Search for a Lorentz-Violating Force in Short-Range Gravity Varying as the Inverse Sixth Power of Distance. Physical Review Letters, 2019, 122, 011102.	2.9	24
61	Lorentz violation in Dirac and Weyl semimetals. Physical Review Research, 2022, 4, .	1.3	20
62	Searches for beyond-Riemann gravity. Physical Review D, 2021, 104, .	1.6	17
63	GRAVITY FROM LOCAL LORENTZ VIOLATION. International Journal of Modern Physics D, 2005, 14, 2341-2346.	0.9	13
64	Lorentz and CPT violation in partons. Journal of High Energy Physics, 2020, 2020, 1.	1.6	8
65	Lorentz symmetry in ghost-free massive gravity. Physical Review D, 2021, 104, .	1.6	8
66	DATA TABLES FOR LORENTZ AND CPT VIOLATION. , 2008, , .		6
67	LORENTZ VIOLATION AND GRAVITY. , 2005, , .		2
68	PERSPECTIVES ON LORENTZ AND CPT VIOLATION. , 2008, , .		2
69	No more spacetime singularities?. General Relativity and Gravitation, 1994, 26, 7-12.	0.7	1
70	Testing CPT and Lorentz symmetry with electrons and positrons in Penning traps. AIP Conference Proceedings, 1999, , .	0.3	1
71	Hydrogen and antihydrogen spectroscopy for studies of CPT and Lorentz symmetry. , 1999, , .		1
72	Testing CPT and Lorentz symmetry with protons and antiprotons in Penning traps. , 1999, , .		1

#	ARTICLE	IF	CITATIONS
73	Developments in Lorentz and CPT Violation. , 2020, , .		1
74	CPT AND LORENTZ VIOLATION IN NEUTRAL-MESON OSCILLATIONS. , 2002, , .		1
75	TOPICS IN LORENTZ AND CPT VIOLATION. , 2010, , .		1
76	SUPERSYMMETRY, COHERENT STATES, AND SQUEEZED STATES FOR RYDBERG ATOMS. , 1994, , .		1
77	Testing CPT with B mesons. , 1998, , .		0
78	Geometrical Methods. , 2006, , 127-158.		0
79	The magnetic proton. Nature, 2014, 509, 571-572.	13.7	0
80	Relativity tested with a split electron. Nature, 2015, 517, 559-560.	13.7	0
81	NEUTRINO OSCILLATIONS AND LORENTZ VIOLATION. , 2004, , .		0