

Tomislav Prokopec

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/7368138/publications.pdf>

Version: 2024-02-01

115
papers

4,860
citations

81900

39
h-index

98798

67
g-index

115
all docs

115
docs citations

115
times ranked

2566
citing authors

#	ARTICLE	IF	CITATIONS
1	Large logarithms from quantum gravitational corrections to a massless, minimally coupled scalar on de Sitter. <i>Journal of High Energy Physics</i> , 2022, 2022, 1.	4.7	14
2	Quantum origin of dark energy and the Hubble tension. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2022, 831, 137174.	4.1	7
3	One-loop graviton corrections to conformal scalars on a de Sitter background. <i>Physical Review D</i> , 2021, 103, .	4.7	3
4	Non-minimally coupled curvaton. <i>Journal of Cosmology and Astroparticle Physics</i> , 2021, 2021, 033.	5.4	7
5	$\langle \hat{\mathcal{I}}^2 \rangle$ and the stochastic conveyor belt of ultra slow-roll inflation. <i>Physical Review D</i> , 2021, 104, .	4.7	8
6	Field-theoretic derivation of bubble-wall force. <i>Journal of High Energy Physics</i> , 2021, 2021, 1.	4.7	39
7	Abelian Higgs model in power-law inflation: the propagators in the unitary gauge. <i>Journal of High Energy Physics</i> , 2020, 2020, 1.	4.7	4
8	Single graviton loop contribution to the self-mass of a massless, conformally coupled scalar on a de Sitter background. <i>Physical Review D</i> , 2020, 101, .	4.7	9
9	Inflation as a spontaneous symmetry breaking of Weyl symmetry. <i>Journal of Cosmology and Astroparticle Physics</i> , 2019, 2019, 022-022.	5.4	21
10	Breaking of scaling symmetry by massless scalar on de Sitter. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2019, 798, 134944.	4.1	5
11	Failure of the stochastic approach to inflation beyond slow-roll. <i>Journal of Cosmology and Astroparticle Physics</i> , 2019, 2019, 048-048.	5.4	48
12	Gravitational waves from conformal symmetry breaking. <i>Journal of Cosmology and Astroparticle Physics</i> , 2019, 2019, 009-009.	5.4	53
13	Field-theoretic approach to large-scale structure formation. <i>Physical Review D</i> , 2019, 100, .	4.7	5
14	Entropy production in inflation from spectator loops. <i>Physical Review D</i> , 2019, 100, .	4.7	7
15	Graviton propagator in a 2-parameter family of de Sitter breaking gauges. <i>Journal of High Energy Physics</i> , 2019, 2019, 1.	4.7	8
16	Single-scale renormalisation group improvement of multi-scale effective potentials. <i>Journal of High Energy Physics</i> , 2018, 2018, 1.	4.7	26
17	Conformal symmetry and the cosmological constant problem. <i>International Journal of Modern Physics D</i> , 2018, 27, 1847014.	2.1	11
18	Systematic analysis of radiative symmetry breaking in models with extended scalar sector. <i>Journal of High Energy Physics</i> , 2018, 2018, 1.	4.7	17

#	ARTICLE	IF	CITATIONS
19	Kinetic theory and classical limit for real scalar quantum field in curved spacetime. Physical Review D, 2018, 98, .	4.7	8
20	Stochastic dark energy from inflationary quantum fluctuations. European Physical Journal C, 2018, 78, 1.	3.9	23
21	Scalar enhancement of the photon electric field by the tail of the graviton propagator. Physical Review D, 2018, 98, .	4.7	12
22	Inflation in an effective gravitational model and asymptotic safety. Physical Review D, 2018, 98, .	4.7	39
23	One loop graviton corrections to dynamical photons in de Sitter. Classical and Quantum Gravity, 2017, 34, 085002.	4.0	16
24	Scalar field dark matter in hybrid approach. Physical Review D, 2017, 96, .	4.7	11
25	On primordial black holes from an inflection point. Physics of the Dark Universe, 2017, 18, 6-10.	4.9	242
26	Gravitational microlensing in Verlinde's emergent gravity. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2017, 769, 281-288.	4.1	17
27	Planck scale operators, inflation, and fine tuning. Physical Review D, 2017, 96, .	4.7	2
28	Deducing cosmological observables from the S matrix. Physical Review D, 2017, 96, .	4.7	19
29	Aims and Scopes of the Special Issue: Foundations of Astrophysics and Cosmology. Foundations of Physics, 2017, 47, 709-710.	1.3	1
30	Singularities in FLRW spacetimes. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2017, 775, 311-314.	4.1	3
31	Singularities and conjugate points in FLRW spacetimes. General Relativity and Gravitation, 2017, 49, 1.	2.0	0
32	The role of conformal symmetry in gravity and the standard model. Classical and Quantum Gravity, 2016, 33, 245002.	4.0	14
33	Global monopoles can change Universe's topology. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2016, 756, 268-272.	4.1	4
34	Topological inflation with graceful exit. Journal of Cosmology and Astroparticle Physics, 2016, 2016, 052-052.	5.4	3
35	Quantum scalar corrections to the gravitational potentials on de Sitter background. Journal of High Energy Physics, 2016, 2016, 1.	4.7	27
36	Late-time quantum backreaction of a very light nonminimally coupled scalar. Physical Review D, 2016, 94, .	4.7	19

#	ARTICLE	IF	CITATIONS
37	Inflation from cosmological constant and nonminimally coupled scalar. <i>Physical Review D</i> , 2015, 92, .	4.7	9
38	Graviton loop corrections to vacuum polarization in de Sitter in a general covariant gauge. <i>Classical and Quantum Gravity</i> , 2015, 32, 195014.	4.0	25
39	Late time solution for interacting scalar in accelerating spaces. <i>Journal of Cosmology and Astroparticle Physics</i> , 2015, 2015, 016-016.	5.4	12
40	Late-time quantum backreaction from inflationary fluctuations of a nonminimally coupled massless scalar. <i>Physical Review D</i> , 2015, 91, .	4.7	22
41	Electrodynamic effects of inflationary gravitons. <i>Classical and Quantum Gravity</i> , 2014, 31, 175002.	4.0	32
42	Representing the graviton self-energy on de Sitter background. <i>Physical Review D</i> , 2014, 90, .	4.7	9
43	Backreaction of a massless minimally coupled scalar field from inflationary quantum fluctuations. <i>Physical Review D</i> , 2014, 89, .	4.7	34
44	The newtonian limit of hermitian gravity. <i>General Relativity and Gravitation</i> , 2013, 45, 155-187.	2.0	1
45	Representing the vacuum polarization on de Sitter. <i>Journal of Mathematical Physics</i> , 2013, 54, .	1.1	16
46	Exact solution of the Dirac equation with CP violation. <i>Physical Review D</i> , 2013, 87, .	4.7	7
47	Frame independent cosmological perturbations. <i>Journal of Cosmology and Astroparticle Physics</i> , 2013, 2013, 027-027.	5.4	32
48	Antiscreening in perturbative quantum gravity and resolving the Newtonian singularity. <i>Physical Review D</i> , 2013, 87, .	4.7	10
49	Covariant vacuum polarizations on de Sitter background. <i>Physical Review D</i> , 2013, 87, .	4.7	18
50	Symmetry breaking and Goldstone theorem in de Sitter space. <i>Journal of Cosmology and Astroparticle Physics</i> , 2012, 2012, 023-023.	5.4	18
51	Uniqueness of the gauge invariant action for cosmological perturbations. <i>Journal of Cosmology and Astroparticle Physics</i> , 2012, 2012, 031-031.	5.4	32
52	The Gaussian entropy of fermionic systems. <i>Annals of Physics</i> , 2012, 327, 3138-3169.	2.8	4
53	Decoherence and dynamical entropy generation in quantum field theory. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2012, 707, 315-318.	4.1	6
54	Regulating the infrared by mode matching: A massless scalar in expanding spaces with constant deceleration. <i>Physical Review D</i> , 2011, 83, .	4.7	15

#	ARTICLE	IF	CITATIONS
55	Quantum backreaction in evolving FLRW spacetimes. <i>Physical Review D</i> , 2011, 83, .	4.7	20
56	Time transients in the quantum corrected Newtonian potential induced by a massless nonminimally coupled scalar field. <i>Physical Review D</i> , 2011, 83, .	4.7	14
57	Resolving Curvature Singularities in Holomorphic Gravity. <i>Foundations of Physics</i> , 2011, 41, 1597-1633.	1.3	12
58	Decoherence in quantum mechanics. <i>Annals of Physics</i> , 2011, 326, 1548-1576.	2.8	11
59	Scalar cosmological perturbations from inflationary black holes. <i>Journal of Cosmology and Astroparticle Physics</i> , 2011, 2011, 050-050.	5.4	11
60	Decoherence in an interacting quantum field theory: Thermal case. <i>Physical Review D</i> , 2011, 83, .	4.7	18
61	The graviton one-loop effective action in cosmological space-times with constant deceleration. <i>Annals of Physics</i> , 2010, 325, 948-968.	2.8	14
62	Entropy and correlators in quantum field theory. <i>Annals of Physics</i> , 2010, 325, 1277-1303.	2.8	17
63	Path integral for inflationary perturbations. <i>Physical Review D</i> , 2010, 82, .	4.7	28
64	Decoherence in an interacting quantum field theory: The vacuum case. <i>Physical Review D</i> , 2010, 81, .	4.7	31
65	Gauge invariant cosmological perturbations for the nonminimally coupled inflaton field. <i>Physical Review D</i> , 2010, 82, .	4.7	33
66	The Hubble effective potential. <i>Journal of Cosmology and Astroparticle Physics</i> , 2009, 2009, 003-003.	5.4	26
67	The fermion propagator in cosmological spaces with constant deceleration. <i>Classical and Quantum Gravity</i> , 2009, 26, 125003.	4.0	29
68	Stochastic inflationary scalar electrodynamics. <i>Annals of Physics</i> , 2008, 323, 1324-1360.	2.8	148
69	Baryogenesis from the amplification of vacuum fluctuations during inflation. <i>Physical Review D</i> , 2008, 78, .	4.7	2
70	Infrared propagator corrections for constant deceleration. <i>Classical and Quantum Gravity</i> , 2008, 25, 245013.	4.0	64
71	A graviton propagator for inflation. <i>Classical and Quantum Gravity</i> , 2008, 25, 055007.	4.0	17
72	Two loop stress-energy tensor for inflationary scalar electrodynamics. <i>Physical Review D</i> , 2008, 78, .	4.7	54

#	ARTICLE	IF	CITATIONS
73	Effect of the trace anomaly on the cosmological constant. <i>Physical Review D</i> , 2008, 78, .	4.7	13
74	Decoherence from isocurvature perturbations in inflation. <i>Journal of Cosmology and Astroparticle Physics</i> , 2007, 2007, 029-029.	5.4	32
75	Vacuum properties of non-symmetric gravity in de Sitter space. <i>Journal of Cosmology and Astroparticle Physics</i> , 2007, 2007, 010-010.	5.4	8
76	Two loop scalar bilinears for inflationary SQED. <i>Classical and Quantum Gravity</i> , 2007, 24, 201-230.	4.0	68
77	Quantum radiative corrections to slow-roll inflation. <i>Physical Review D</i> , 2007, 76, .	4.7	48
78	Baryogenesis in the MSSM, nMSSM and NMSSM. <i>Nuclear Physics A</i> , 2007, 785, 206-209.	1.5	27
79	Fermion mass generation in de Sitter space. <i>Physical Review D</i> , 2006, 73, .	4.7	61
80	SO(10)-GUT coherent baryogenesis. <i>Nuclear Physics B</i> , 2006, 736, 133-155.	2.5	18
81	MSSM electroweak baryogenesis and flavour mixing in transport equations. <i>Nuclear Physics B</i> , 2006, 738, 1-22.	2.5	113
82	Electroweak phase transition and baryogenesis in the nMSSM. <i>Nuclear Physics B</i> , 2006, 757, 172-196.	2.5	109
83	Kinetic description of fermion flavor mixing and CP-violating sources for baryogenesis. <i>Nuclear Physics B</i> , 2005, 716, 373-400.	2.5	70
84	PHOTON MASS IN INFLATION AND NEARLY MINIMAL MAGNETOGENESIS. , 2005, , .		0
85	Coherent Baryogenesis. <i>Physical Review Letters</i> , 2004, 92, 061303.	7.8	20
86	Photon mass generation during inflation: de Sitter invariant case. <i>Journal of Cosmology and Astroparticle Physics</i> , 2004, 2004, 007-007.	5.4	58
87	Particle number in kinetic theory. <i>European Physical Journal C</i> , 2004, 38, 135-143.	3.9	33
88	Transport equations for chiral fermions to order \hat{a} , and electroweak baryogenesis: Part II. <i>Annals of Physics</i> , 2004, 314, 267-320.	2.8	106
89	Transport equations for chiral fermions to order \hat{a} , and electroweak baryogenesis: Part I. <i>Annals of Physics</i> , 2004, 314, 208-265.	2.8	126
90	Dynamics of superhorizon photons during inflation with vacuum polarization. <i>Annals of Physics</i> , 2004, 312, 1-16.	2.8	65

#	ARTICLE	IF	CITATIONS
91	Nearly minimal magnetogenesis. <i>Physical Review D</i> , 2004, 70, .	4.7	39
92	Axial currents from CKM matrix CP violation and electroweak baryogenesis. <i>Nuclear Physics B</i> , 2004, 679, 246-260.	2.5	48
93	Vacuum polarization and photon mass in inflation. <i>American Journal of Physics</i> , 2004, 72, 60-72.	0.7	65
94	One loop vacuum polarization in a locally de Sitter background. <i>Annals of Physics</i> , 2003, 303, 251-274.	2.8	104
95	Production of massless fermions during inflation. <i>Journal of High Energy Physics</i> , 2003, 2003, 059-059.	4.7	80
96	Natural magnetogenesis from inflation. <i>Physical Review D</i> , 2002, 65, .	4.7	81
97	Photon Mass from Inflation. <i>Physical Review Letters</i> , 2002, 89, 101301.	7.8	125
98	Semiclassical force for electroweak baryogenesis: Three-dimensional derivation. <i>Physical Review D</i> , 2002, 66, .	4.7	56
99	Primordial spectrum of gauge fields from inflation. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2001, 501, 165-172.	4.1	105
100	First principle derivation of semiclassical force for electroweak baryogenesis. <i>Journal of High Energy Physics</i> , 2001, 2001, 031-031.	4.7	83
101	Baryogenesis from 'electrogenesis' in a scalar field dominated epoch. <i>Journal of High Energy Physics</i> , 2000, 2000, 030-030.	4.7	8
102	The semiclassical propagator in field theory. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 1999, 468, 128-133.	4.1	7
103	Turning around the sphaleron bound: Electroweak baryogenesis in an alternative post-inflationary cosmology. <i>Physical Review D</i> , 1998, 57, 6022-6049.	4.7	113
104	Lattice study of classical inflaton decay. <i>Physical Review D</i> , 1997, 55, 3768-3775.	4.7	180
105	Nonlocal electroweak baryogenesis. II. The classical regime. <i>Physical Review D</i> , 1996, 53, 2958-2980.	4.7	132
106	Nonlocal electroweak baryogenesis. I. Thin wall regime. <i>Physical Review D</i> , 1996, 53, 2930-2957.	4.7	142
107	How fast can the wall move? A study of the electroweak phase transition dynamics. <i>Physical Review D</i> , 1995, 52, 7182-7204.	4.7	166
108	Bubble Wall Velocity in a First Order Electroweak Phase Transition. <i>Physical Review Letters</i> , 1995, 75, 777-780.	7.8	117

#	ARTICLE	IF	CITATIONS
109	Electroweak Baryogenesis from a Classical Force. <i>Physical Review Letters</i> , 1995, 75, 3375-3375.	7.8	34
110	Electroweak Baryogenesis from a Classical Force. <i>Physical Review Letters</i> , 1995, 75, 1695-1698.	7.8	102
111	Efficient electroweak baryogenesis from lepton transport. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 1994, 338, 269-275.	4.1	50
112	Inflation and squeezed quantum states. <i>Physical Review D</i> , 1994, 50, 4807-4820.	4.7	238
113	Entropy of the squeezed vacuum. <i>Classical and Quantum Gravity</i> , 1993, 10, 2295-2306.	4.0	44
114	Entropy of the gravitational field. <i>Physical Review D</i> , 1993, 48, 2443-2455.	4.7	81
115	Entropy of a classical stochastic field and cosmological perturbations. <i>Physical Review Letters</i> , 1992, 69, 3606-3609.	7.8	82