

Mark Trodden

List of Publications by Year in descending order

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133
papers

10,725
citations

53794

45
h-index

30087

103
g-index

133
all docs

133
docs citations

133
times ranked

7570
citing authors

#	ARTICLE	IF	CITATIONS
1	Is cosmic speed-up due to new gravitational physics?. Physical Review D, 2004, 70, .	4.7	1,827
2	Can the dark energy equation-of-state parameter be less than -1 ? Physical Review D, 2003, 68, .	4.7	967
3	Beyond the cosmological standard model. Physics Reports, 2015, 568, 1-98.	25.6	859
4	Cosmology of generalized modified gravity models. Physical Review D, 2005, 71, .	4.7	505
5	RECENT PROGRESS IN BARYOGENESIS. Annual Review of Nuclear and Particle Science, 1999, 49, 35-75.	10.2	480
6	Electroweak baryogenesis. Reviews of Modern Physics, 1999, 71, 1463-1500.	45.6	402
7	The state of the dark energy equation of state. Physical Review D, 2003, 68, .	4.7	367
8	Approaches to understanding cosmic acceleration. Reports on Progress in Physics, 2009, 72, 096901.	20.1	290
9	Model for neutrino masses and dark matter. Physical Review D, 2003, 67, .	4.7	280
10	Dynamics of linear perturbations in $f(R)$ gravity. Physical Review D, 2007, 75, .	4.7	268
11	Compact Hyperbolic Extra Dimensions: Branes, Kaluza-Klein Modes, and Cosmology. Physical Review Letters, 2000, 85, 928-931.	7.8	165
12	Early Dark Energy from Massive Neutrinos as a Natural Resolution of the Hubble Tension. Physical Review Letters, 2020, 124, 161301.	7.8	159
13	Multifield Galileons and higher codimension branes. Physical Review D, 2010, 82, .	4.7	156
14	A new view of f -essence. Physical Review D, 2003, 67, .	4.7	146
15	Decaying vacuum energy and deflationary cosmology in open and closed universes. Physical Review D, 1996, 53, 4280-4286.	4.7	135
16	Modified-source gravity and cosmological structure formation. New Journal of Physics, 2006, 8, 323-323.	2.9	135
17	Constraining interactions in cosmology's dark sector. Physical Review D, 2008, 78, .	4.7	135
18	Ghosts, instabilities, and superluminal propagation in modified gravity models. Journal of Cosmology and Astroparticle Physics, 2006, 2006, 005-005.	5.4	119

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19	Symmetries for Galileons and DBI scalars on curved space. <i>Journal of Cosmology and Astroparticle Physics</i> , 2011, 2011, 017-017.	5.4	117
20	Causality and cosmic inflation. <i>Physical Review D</i> , 1999, 61, .	4.7	115
21	Cosmic vortons and particle physics constraints. <i>Physical Review D</i> , 1996, 54, 6059-6071.	4.7	111
22	Adiabatic instability in coupled dark energy/dark matter models. <i>Physical Review D</i> , 2008, 78, .	4.7	101
23	Baryogenesis below The Electroweak Scale. <i>Physical Review Letters</i> , 1999, 83, 1502-1505.	7.8	97
24	N = 1 supersymmetric cosmic strings. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 1997, 405, 257-264.	4.1	96
25	The classical double copy in maximally symmetric spacetimes. <i>Journal of High Energy Physics</i> , 2018, 2018, 1.	4.7	91
26	Homogeneity, Flatness, and ∞ Extra Dimensions. <i>Physical Review Letters</i> , 2001, 87, 231303.	7.8	90
27	Large extra dimensions and cosmological problems. <i>Physical Review D</i> , 2001, 63, .	4.7	86
28	Galileons as Wess-Zumino terms. <i>Journal of High Energy Physics</i> , 2012, 2012, 1.	4.7	86
29	Can we be tricked into thinking that w is less than -1 ?. <i>Physical Review D</i> , 2005, 71, .	4.7	83
30	New Class of Effective Field Theories from Embedded Branes. <i>Physical Review Letters</i> , 2011, 106, 231102.	7.8	82
31	Generalizing Galileons. <i>Classical and Quantum Gravity</i> , 2011, 28, 204003.	4.0	76
32	Domain wall junctions are 1/4 BPS states. <i>Physical Review D</i> , 2000, 61, .	4.7	70
33	Hybrid inflation and baryogenesis at the TeV scale. <i>Physical Review D</i> , 2001, 64, .	4.7	62
34	Stability and superluminality of spherical DBI Galileon solutions. <i>Physical Review D</i> , 2011, 83, .	4.7	61
35	Cosmological perturbations in extended massive gravity. <i>Physical Review D</i> , 2013, 88, .	4.7	61
36	Running of the scalar spectral index from inflationary models. <i>Physical Review D</i> , 2003, 68, .	4.7	60

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37	Distinguishing k -defects from their canonical twins. Physical Review D, 2010, 82, .	4.7	54
38	Relaxing nucleosynthesis constraints on Brans-Dicke theories. Physical Review D, 2006, 74, .	4.7	53
39	Visible and dark matter from a first-order phase transition in a baryon-symmetric universe. Journal of Cosmology and Astroparticle Physics, 2012, 2012, 044-044.	5.4	53
40	Cosmic strings and electroweak baryogenesis. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1994, 335, 123-130.	4.1	51
41	Chameleon early dark energy and the Hubble tension. Physical Review D, 2022, 105, .	4.7	51
42	Shapes of gravity: tensor non-Gaussianity and massive spin-2 fields. Journal of High Energy Physics, 2019, 2019, 1.	4.7	50
43	Covariant master theory for novel Galilean invariant models and massive gravity. Physical Review D, 2012, 86, .	4.7	49
44	Charged false vacuum bubbles and the AdS/CFT correspondence. Journal of High Energy Physics, 1999, 1999, 020-020.	4.7	47
45	Aspects of Galileon non-renormalization. Journal of High Energy Physics, 2016, 2016, 1.	4.7	47
46	Cosmologies of extended massive gravity. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2013, 725, 1-5.	4.1	45
47	Multimessenger time delays from lensed gravitational waves. Physical Review D, 2017, 95, .	4.7	43
48	Radion stabilization in compact hyperbolic extra dimensions. Physical Review D, 2002, 66, .	4.7	42
49	Quintessential baryogenesis. Physical Review D, 2003, 67, .	4.7	42
50	Tackling higher derivative ghosts with the Euclidean path integral. Physical Review D, 2011, 83, .	4.7	41
51	The adiabatic instability on cosmology's dark side. New Journal of Physics, 2008, 10, 033006.	2.9	39
52	Higher-derivative operators and effective field theory for general scalar-tensor theories. Journal of Cosmology and Astroparticle Physics, 2018, 2018, 031-031.	5.4	38
53	Retarded Green's function of a Vainshtein system and Galileon waves. Physical Review D, 2013, 87, .	4.7	37
54	Cascading cosmology. Physical Review D, 2010, 81, .	4.7	36

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55	Void lensing as a test of gravity. <i>Physical Review D</i> , 2018, 98, .	4.7	35
56	Dirichlet topological defects. <i>Physical Review D</i> , 1998, 57, 5189-5194.	4.7	32
57	Massive Gravity Coupled to Galileons is Ghost-Free. <i>Physical Review Letters</i> , 2013, 111, 061107.	7.8	32
58	Moduli stabilization and inflation using wrapped branes. <i>Physical Review D</i> , 2005, 72, .	4.7	31
59	Galileons on cosmological backgrounds. <i>Journal of Cosmology and Astroparticle Physics</i> , 2011, 2011, 004-004.	5.4	29
60	Local and nonlocal defect-mediated electroweak baryogenesis. <i>Physical Review D</i> , 1996, 53, 4257-4266.	4.7	27
61	Neutrino-assisted early dark energy: theory and cosmology. <i>Journal of Cosmology and Astroparticle Physics</i> , 2021, 2021, 063.	5.4	27
62	Superconducting cosmic strings and primordial magnetic fields. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 1992, 293, 287-293.	4.1	26
63	Particle physics models, topological defects and electroweak baryogenesis. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 1995, 349, 131-136.	4.1	26
64	Extra-dimensional cosmology with domain-wall branes. <i>Journal of High Energy Physics</i> , 2009, 2009, 035-035.	4.7	26
65	Radiation of scalar modes and the classical double copy. <i>Journal of High Energy Physics</i> , 2018, 2018, 1.	4.7	26
66	Cosmic strings, zero modes, and supersymmetry breaking in non-Abelian $N=1$ gauge theories. <i>Physical Review D</i> , 1998, 57, 5184-5188.	4.7	24
67	Galileon forces in the Solar System. <i>Physical Review D</i> , 2013, 88, .	4.7	23
68	Observation of Cosmic Acceleration and Determining the Fate of the Universe. <i>Physical Review Letters</i> , 1999, 83, 1510-1513.	7.8	22
69	Instabilities of spherical solutions with multiple Galileons and S^2 O(N) scalar fields. <i>Physical Review D</i> , 2013, 88, 043502.	4.7	22
70	How likely are constituent quanta to initiate inflation?. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2015, 749, 425-430.	4.1	22
71	Semianalytical approaches to local electroweak baryogenesis. <i>Physical Review D</i> , 1997, 56, 1250-1261.	4.7	21
72	BPS domain wall junctions in infinitely large extra dimensions. <i>Physical Review D</i> , 2000, 62, .	4.7	21

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73	Cosmological constraints on a classical limit of quantum gravity. <i>Physical Review D</i> , 2005, 72, .	4.7	21
74	Topological inflation with multiple winding. <i>Physical Review D</i> , 1998, 57, 7186-7191.	4.7	20
75	Gauged galileons from branes. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2012, 714, 115-119.	4.1	20
76	Cosmological perturbations of massive gravity coupled to DBI Galileons. <i>Classical and Quantum Gravity</i> , 2013, 30, 184006.	4.0	20
77	Einstein gravity, massive gravity, multi-gravity and nonlinear realizations. <i>Journal of High Energy Physics</i> , 2015, 2015, 1.	4.7	19
78	Spontaneously broken gauge theories and the coset construction. <i>Physical Review D</i> , 2014, 90, .	4.7	18
79	Preheating in derivatively coupled inflation models. <i>Journal of Cosmology and Astroparticle Physics</i> , 2008, 2008, 036.	5.4	17
80	Shift symmetries, soft limits, and the double copy beyond leading order. <i>Physical Review D</i> , 2020, 102, .	4.7	17
81	Metastable Kinks in the Orbifold. <i>Physical Review Letters</i> , 2008, 100, 041602.	7.8	16
82	Detecting the stochastic gravitational wave background from massive gravity with pulsar timing arrays. <i>Physical Review D</i> , 2021, 104, .	4.7	16
83	WHAT IS THE HOMOGENEITY OF OUR UNIVERSE TELLING US?. <i>Modern Physics Letters A</i> , 1999, 14, 1661-1665.	1.2	15
84	Creation and structure of baby universes in monopole collisions. <i>Physical Review D</i> , 1999, 59, .	4.7	15
85	Black holes and instabilities of negative tension branes. <i>Physical Review D</i> , 2001, 64, .	4.7	15
86	Can cosmic parallax distinguish between anisotropic cosmologies?. <i>Physical Review D</i> , 2009, 80, .	4.7	15
87	Quantum fine-tuning in stringy quintessence models. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2019, 797, 134878.	4.1	15
88	Baryogenesis after hyperextended inflation. <i>Physical Review D</i> , 2005, 72, .	4.7	13
89	COSMIC ACCELERATION AND MODIFIED GRAVITY. <i>International Journal of Modern Physics D</i> , 2007, 16, 2065-2074.	2.1	13
90	INTRODUCTION TO COSMOLOGY. , 2004, , 703-793.		12

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91	Phase transitions in the core of global embedded defects. <i>Physical Review D</i> , 1998, 58, .	4.7	10
92	Screening bulk curvature in the presence of large brane tension. <i>Physical Review D</i> , 2011, 83, .	4.7	10
93	Holographic CFTs on maximally symmetric spaces: Correlators, integral transforms, and applications. <i>Physical Review D</i> , 2015, 92, .	4.7	10
94	Finding structure in the dark: Coupled dark energy, weak lensing, and the mildly nonlinear regime. <i>Physical Review D</i> , 2018, 97, .	4.7	10
95	Oscillons in higher-derivative effective field theories. <i>Physical Review D</i> , 2018, 98, .	4.7	10
96	Dynamical breaking of CPT symmetry in defect networks and baryogenesis. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 1996, 384, 175-179.	4.1	9
97	Baryogenesis and the new cosmology. <i>Pramana - Journal of Physics</i> , 2004, 62, 451-463.	1.8	9
98	Supersymmetric k-defects. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2016, 755, 498-503.	4.1	9
99	Field theories and fluids for an interacting dark sector. <i>Physical Review D</i> , 2018, 97, .	4.7	9
100	Is the universe inflating? Dark energy and the future of the universe. <i>Physical Review D</i> , 2002, 66, .	4.7	8
101	The shapes of Dirichlet defects. <i>Journal of High Energy Physics</i> , 2003, 2003, 067-067.	4.7	8
102	Non-Gaussian Signatures from the Postinflationary Early Universe. <i>Physical Review Letters</i> , 2009, 103, 251301.	7.8	8
103	Solitons in generalized Galileon theories. <i>Physical Review D</i> , 2016, 94, .	4.7	8
104	COSMIC STRINGS AND ELECTROWEAK SYMMETRY RESTORATION IN THE TWO-HIGGS DOUBLET MODEL. <i>Modern Physics Letters A</i> , 1994, 09, 2649-2659.	1.2	7
105	Where does cosmological perturbation theory break down?. <i>Classical and Quantum Gravity</i> , 2009, 26, 185002.	4.0	7
106	Baryogenesis via dark matter-induced symmetry breaking in the early Universe. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2017, 774, 183-188.	4.1	7
107	Existence and stability of nontrivial scalar field configurations in orbifolded extra dimensions. <i>Physical Review D</i> , 2008, 77, .	4.7	6
108	Galileons coupled to massive gravity: general analysis and cosmological solutions. <i>Journal of Cosmology and Astroparticle Physics</i> , 2014, 2014, 008-008.	5.4	6

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109	Holography for a non-inflationary early universe. <i>Journal of High Energy Physics</i> , 2015, 2015, 1.	4.7	6
110	Non-canonical kinetic structures in the swampland. <i>Journal of Cosmology and Astroparticle Physics</i> , 2020, 2020, 049-049.	5.4	6
111	Relaxing cosmological constraints on large extra dimensions. <i>Physical Review D</i> , 2005, 71, .	4.7	5
112	Scalar kinks in warped extra dimensions. <i>Physical Review D</i> , 2010, 82, .	4.7	5
113	Topology in the little Higgs models. <i>Physical Review D</i> , 2004, 70, .	4.7	4
114	Some adventures in the search for a modified gravity explanation of cosmic acceleration. <i>General Relativity and Gravitation</i> , 2011, 43, 3367-3379.	2.0	3
115	Dark matter with density-dependent interactions. <i>Physical Review D</i> , 2012, 86, .	4.7	3
116	Baryogenesis via gravitational spontaneous symmetry breaking. <i>Physical Review D</i> , 2019, 100, .	4.7	3
117	CP violation from surface terms in the electroweak theory without fermions. <i>Physical Review D</i> , 1998, 58, .	4.7	2
118	Constructing Galileons. <i>Journal of Physics: Conference Series</i> , 2015, 631, 012013.	0.4	2
119	Dirichlet solitons in field theories. , 1999, , .		1
120	Weakly first order cosmological phase transitions and fermion production. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2001, 517, 7-12.	4.1	1
121	Vortex scattering and intercommuting cosmic strings on a noncommutative spacetime. <i>Physical Review D</i> , 2010, 81, .	4.7	1
122	Cosmic acceleration and the challenge of modifying gravity. <i>Journal of Physics: Conference Series</i> , 2011, 284, 012004.	0.4	1
123	Holographic two-point functions in the pseudoconformal universe. <i>Physical Review D</i> , 2020, 102, .	4.7	1
124	Effective field theory for binary cosmic strings. <i>Physical Review D</i> , 2021, 104, .	4.7	1
125	DILUTING GRAVITY WITH COMPACT HYPERBOLOIDS. , 2001, , .		1
126	MAKING BARYONS BELOW THE ELECTROWEAK SCALE. , 2000, , .		1

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127	Dark matter self-interactions from higher dimensional gravity. Physical Review D, 2006, 73, .	4.7	0
128	Connecting the Dark Side and Fundamental Physics. AIP Conference Proceedings, 2006, , .	0.4	0
129	Electroweak vacuum angle at finite temperature and implications for baryogenesis. Physical Review D, 2015, 92, .	4.7	0
130	WKB approximation and tunneling in theories with noncanonical kinetic terms. Physical Review D, 2017, 96, .	4.7	0
131	Microphysics of Gauge Vortices and Baryogenesis. , 2000, , 273-277.		0
132	COSMIC ACCELERATION AND MODIFIED GRAVITY. , 2009, , 191-200.		0
133	SUPERSYMMETRIC STRINGS AND PERMIONIC ZERO MODES. , 1998, , .		0