Katherine Freese

List of Publications by Year
in descending order

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92 papers	6,964 citations	117625 34 h-index	56724 83 g-index
92 all docs	92 docs citations	92 times ranked	4070 citing authors

#	Article	IF	Citations
1	Natural inflation with pseudo Nambu-Goldstone bosons. Physical Review Letters, 1990, 65, 3233-3236.	7.8	1,019
2	The Simons Observatory: science goals and forecasts. Journal of Cosmology and Astroparticle Physics, 2019, 2019, 056-056.	5.4	741
3	Detecting cold dark-matter candidates. Physical Review D, 1986, 33, 3495-3508.	4.7	692
4	Natural inflation: Particle physics models, power-law spectra for large-scale structure, and constraints from the Cosmic Background Explorer. Physical Review D, 1993, 47, 426-455.	4.7	473
5	Signal modulation in cold-dark-matter detection. Physical Review D, 1988, 37, 3388-3405.	4.7	401
6	Unveiling <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Î½</mml:mi></mml:math> secrets with cosmological data: Neutrino masses and mass hierarchy. Physical Review D, 2017, 96, .	4.7	277
7	Testing the rotational nature of the supermassive object M87* from the circularity and size of its first image. Physical Review D, 2019, 100, .	4.7	253
8	Colloquium: Annual modulation of dark matter. Reviews of Modern Physics, 2013, 85, 1561-1581.	45.6	250
9	Can scalar neutrinos or massive Dirac neutrinos be the missing mass?. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1986, 167, 295-300.	4.1	186
10	Constraints on the sum of the neutrino masses in dynamical dark energy models with <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>w</mml:mi><mml:mo stretchy="false">(</mml:mo><mml:mi>z</mml:mi><mml:mo) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 377 Td (stretchy="false"></mml:mo></mml:mrow></mml:math> are tighter than those obtained in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" disp	4.7	144
11	Improvement of cosmological neutrino mass bounds. Physical Review D, 2016, 94, .	4.7	136
12	Annual modulation of dark matter in the presence of streams. Physical Review D, 2006, 74, .	4.7	131
13	Effects of the Sagittarius Dwarf Tidal Stream on Dark Matter Detectors. Physical Review Letters, 2004, 92, 111301.	7.8	114
14	Detectability of weakly interacting massive particles in the Sagittarius dwarf tidal stream. Physical Review D, 2005, 71, .	4.7	108
15	Can WIMP spin dependent couplings explain DAMA data, in light of null results from other experiments?. Physical Review D, 2004, 70, .	4.7	96
16	Constraints on primordial black holes with extended mass functions. Physical Review D, 2017, 95, .	4.7	92
17	Double-field inflation. Physical Review D, 1991, 43, 353-361.	4.7	88
18	Constraints on the scalar-field potential in inflationary models. Physical Review D, 1991, 43, 965-976.	4.7	84

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19	Future Type Ia Supernova Data as Tests of Dark Energy from Modified Friedmann Equations. Astrophysical Journal, 2003, 594, 25-32.	4.5	81
20	Scale-dependent galaxy bias, CMB lensing-galaxy cross-correlation, and neutrino masses. Physical Review D, 2018, 98, .	4.7	73
21	XENON10/100 dark matter constraints in comparison with CoGeNT and DAMA: Examining theLeffdependence. Physical Review D, 2011, 83, .	4.7	71
22	Impact of neutrino properties on the estimation of inflationary parameters from current and future observations. Physical Review D, 2017, 95, .	4.7	70
23	Baryogenesis during reheating in natural inflation and comments on spontaneous baryogenesis. Physical Review D, 1997, 56, 6155-6165.	4.7	66
24	Calculation of particle production by Nambu-Goldstone bosons with application to inflation reheating and baryogenesis. Physical Review D, 1995, 51, 2693-2702.	4.7	65
25	Status of dark matter in the universe. International Journal of Modern Physics D, 2017, 26, 1730012.	2.1	64
26	On natural inflation. Physical Review D, 2004, 70, .	4.7	60
27	Natural inflation: Status after WMAP 3-year data. Physical Review D, 2006, 74, .	4.7	58
28	Natural inflation: consistency with cosmic microwave background observations of Planck and BICEP2. Journal of Cosmology and Astroparticle Physics, 2015, 2015, 044-044.	5.4	56
29	Chain inflation in the landscape: â€˜bubble bubble toil and troubleâ€™. Journal of Cosmology and Astroparticle Physics, 2005, 2005, 007-007.	5.4	54
30	The impact of baryons on the direct detection of dark matter. Journal of Cosmology and Astroparticle Physics, 2016, 2016, 071-071.	5.4	49
31	Dark Matter implications of DAMA/LIBRA-phase2 results. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2019, 789, 262-269.	4.1	48
32	Holes in the walls: Primordial black holes as a solution to the cosmological domain wall problem. Physical Review D, 2005, 72, .	4.7	40
33	Accretion process onto super-spinning objects. Physical Review D, 2009, 80, .	4.7	39
34	Dark stars: a review. Reports on Progress in Physics, 2016, 79, 066902.	20.1	39
35	Probing the nature of dark matter with accreted globular cluster streams. Monthly Notices of the Royal Astronomical Society, 2020, 501, 179-200.	4.4	33
36	The Higgs boson can delay reheating after inflation. Journal of Cosmology and Astroparticle Physics, 2018, 2018, 067-067.	5.4	29

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37	Cascade events at IceCube + DeepCore as a definitive constraint on the dark matter interpretation of the PAMELA and Fermi anomalies. Physical Review D, 2010, 81, .	4.7	28
38	Paleo-detectors: Searching for dark matter with ancient minerals. Physical Review D, 2019, 99, .	4.7	28
39	Phase of the annual modulation as a tool for determining the mass of the weakly interacting massive particle. Physical Review D, 2004, 70, .	4.7	27
40	Observing supermassive dark stars with James Webb Space Telescope. Monthly Notices of the Royal Astronomical Society, 2012, 422, 2164-2186.	4.4	27
41	Dark matter capture, subdominant WIMPs, and neutrino observatories. Physical Review D, 2017, 95, .	4.7	27
42	Chain early dark energy: A Proposal for solving the Hubble tension and explaining todayâ€™s dark energy. Physical Review D, 2021, 104, .	4.7	27
43	NMSSM Higgs boson search strategies at the LHC and the mono-Higgs signature in particular. Physical Review D, 2017, 95, .	4.7	24
44	High-energy neutrino signatures of dark matter. Physical Review D, 2010, 81, .	4.7	22
45	Predictive signatures of supersymmetry: Measuring the dark matter mass and gluino mass with early LHC data. Physical Review D, 2011, 84, .	4.7	22
46	The NMSSM is within reach of the LHC: mass correlations & decay signatures. Journal of High Energy Physics, 2019, 2019, 1.	4.7	22
47	Searching for dark matter with paleo-detectors. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2020, 803, 135325.	4.1	22
48	Digging for dark matter: Spectral analysis and discovery potential of paleo-detectors. Physical Review D, 2019, 99, .	4.7	21
49	Probing dark matter streams with CoGeNT. Physical Review D, 2011, 84, .	4.7	19
50	Indirect detection of a light Higgsino motivated by collider data. Physical Review D, 1997, 55, 1771-1776.	4.7	18
51	On the direct detection of extragalactic weakly interacting massive particles. Physical Review D, 2001, 64, .	4.7	18
52	Sensitivity of the IceCube neutrino detector to dark matter annihilating in dwarf galaxies. Physical Review D, 2010, 81, .	4.7	18
53	Determining dark matter properties with a XENONnT/LZ signal and LHC RunÂ3 monojet searches. Physical Review D, 2018, 97, .	4.7	18
54	Probing the Earth with weakly interacting massive particles. Physical Review D, 1989, 39, 1029-1045.	4.7	17

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55	NATURAL INFLATION: STATUS AFTER WMAP THREE-YEAR DATA. International Journal of Modern Physics D, 2007, 16, 2573-2585.	2.1	16
56	Uncertainties in direct dark matter detection in light of Gaia's escape velocity measurements. Journal of Cosmology and Astroparticle Physics, 2019, 2019, 034-034.	5.4	16
57	Filling the black hole mass gap: Avoiding pair instability in massive stars through addition of nonnuclear energy. Physical Review D, 2021, 104, .	4.7	16
58	Scalar field potential in inflationary models: Reconstruction and further constraints. Physical Review D, 1995, 51, 6722-6735.	4.7	15
59	Moduli inflation with large scale structure produced by topological defects. Physical Review D, 1996, 54, 6083-6087.	4.7	15
60	Paleodetectors for Galactic supernova neutrinos. Physical Review D, 2020, 101, .	4.7	14
61	CMB <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>B</mml:mi></mml:math> -mode non-Gaussianity: Optimal bispectrum estimator and Fisher forecasts. Physical Review D, 2020, 102, .	4.7	13
62	Coupling of pseudo Nambu-Goldstone bosons to other scalars and its role in double field inflation. Physical Review D, 1994, 50, 7731-7734.	4.7	12
63	Dark stars: a new study of the first stars in the Universe. New Journal of Physics, 2009, 11, 105014.	2.9	12
64	Using action space clustering to constrain the recent accretion history of Milky Way-like galaxies. Monthly Notices of the Royal Astronomical Society, 2021, 509, 5882-5901.	4.4	11
65	Probing EWSB naturalness in unified SUSY models with dark matter. Journal of High Energy Physics, 2011, 2011, 1.	4.7	10
66	On stochastic effects and primordial black-hole formation. European Physical Journal C, 2019, 79, 1.	3.9	10
67	Radiative corrections to the inflaton potential as an explanation of suppressed large scale power in density perturbations and the cosmic microwave background. Journal of Cosmology and Astroparticle Physics, 2005, 2005, 003-003.	5.4	9
68	Lensed density perturbations in braneworlds: Towards an alternative to perturbations from inflation. Physical Review D, 2003, 67, .	4.7	8
69	The Effect of Dark Matter on the First Stars: A New Phase of Stellar Evolution. , 2008, , .		8
70	Waves from the centre: probing PBH and other macroscopic dark matter with LISA. European Physical Journal C, 2020, 80, 1.	3.9	8
71	Positrons in cosmic rays from dark matter annihilations for uplifted Higgs regions in the MSSM. Physical Review D, 2010, 81, .	4.7	7
72	Gamma rays from muons from WIMPs: Implementation of radiative muon decays for dark matter analyses. Physical Review D, 2016, 93, .	4.7	7

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73	Status of dark matter in the universe. , 2017, , .		7
74	New Projections for Dark Matter Searches with Paleo-Detectors. Instruments, 2021, 5, 21.	1.8	7
75	Large density perturbations from reheating to standard model particles due to the dynamics of the Higgs boson during inflation. Physical Review D, 2021, 104, .	4.7	6
76	Are we seeing the beginnings of inflation?. Physical Review D, 2009, 80, .	4.7	5
77	Gamma-ray constraints on the first stars from annihilation of light WIMPs. Physical Review D, 2012, 85, .	4.7	5
78	Dark matter collisions with the human body. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2012, 717, 25-28.	4.1	5
79	Power spectrum of density perturbations in chain inflation. Physical Review D, 2021, 103, .	4.7	5
80	Natural Inflation. Annals of the New York Academy of Sciences, 1991, 647, 715-726.	3.8	4
81	Dark matter in the MSSM golden region. Physical Review D, 2009, 79, .	4.7	4
82	Examining the time dependence of DAMAâ€™s modulation amplitude. European Physical Journal C, 2018, 78, 1.	3.9	4
83	Cornering (quasi) degenerate neutrinos with cosmology. Journal of High Energy Physics, 2020, 2020, 1.	4.7	4
84	The dark side of the universe. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2006, 559, 337-340.	1.6	3
85	Supermassive Dark Stars: Detectable by JWST and HST. , 2010, , .		3
86	Stability and pulsation of the first dark stars. Monthly Notices of the Royal Astronomical Society, 2021, 503, 3677-3691.	4.4	3
87	Inelastic dark matter scattering off Thallium cannot save DAMA. Journal of Cosmology and Astroparticle Physics, 2021, 2021, 070.	5.4	3
88	Natural Chain Inflation. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2022, 829, 137081.	4.1	2
89	Dark Stars: Dark matter in the first stars leads to a new phase of stellar evolution. Proceedings of the International Astronomical Union, 2008, 4, 56-60.	0.0	1
90	Death of Stellar Baryonic Dark Matter. , 2001, , .		1

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91	THE POSITRON EXCESS AND SUPERSYMMETRIC DARK MATTER. , 2003, , .		0
92	NATURAL INFLATION: STATUS AFTER WMAP THREE-YEAR DATA. , 2009, , 707-719.		0