Hiranya V Peiris

List of Publications by Year
in descending order

95	3,740	37	56
papers	citations	h-index	g-index
		94381	149623

95	95	95	3382
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Probing Inflation with CMB Polarization. , 2009, , .		252
2	Prospects for Resolving the Hubble Constant Tension with Standard Sirens. Physical Review Letters, 2019, 122, 061105.	2.9	143
3	PHOTOMETRIC SUPERNOVA CLASSIFICATION WITH MACHINE LEARNING. Astrophysical Journal, Supplement Series, 2016, 225, 31.	3.0	138
4	Strong Bound on Canonical Ultralight Axion Dark Matter from the Lyman-Alpha Forest. Physical Review Letters, 2021, 126, 071302.	2.9	134
5	Robust forecasts on fundamental physics from the foreground-obscured, gravitationally-lensed CMB polarization. Journal of Cosmology and Astroparticle Physics, 2016, 2016, 052-052.	1.9	126
6	CMB polarization features from inflation versus reionization. Physical Review D, 2009, 79, .	1.6	109
7	Bayesian analysis of inflation. II. Model selection and constraints on reheating. Physical Review D, 2012, 85, .	1.6	109
8	How Isotropic is the Universe?. Physical Review Letters, 2016, 117, 131302.	2.9	105
9	Considerations in optimizing CMB polarization experiments to constrain inflationary physics. Journal of Cosmology and Astroparticle Physics, 2006, 2006, 019-019.	1.9	94
10	Phenomenology of D-brane inflation with general speed of sound. Physical Review D, 2007, 76, .	1.6	82
11	Minimally parametric power spectrum reconstruction from the Lyman Î± forest. Monthly Notices of the Royal Astronomical Society, 2011, 413, 1717-1728.	1.6	82
12	Constraints on Primordial Non-Gaussianity from<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mn>800</mml:mn><mml:mtext>â€‰</mml:mtext><mml:mn>000</mml:mn></mml:mrow></mml Quasars. Physical Review Letters, 2014, 113, 221301.	2.9	82
13	Bayesian analysis of inflation: Parameter estimation for single field models. Physical Review D, 2011, 83, .	1.6	80
14	Comparing infrared Dirac-Born-Infeld brane inflation to observations. Physical Review D, 2008, 77, .	1.6	76
15	Slow roll reconstruction: constraints on inflation from the 3 year WMAP data set. Journal of Cosmology and Astroparticle Physics, 2006, 2006, 017-017.	1.9	71
16	Recovering the inflationary potential and primordial power spectrum with a slow roll prior: methodology and application to WMAP three year data. Journal of Cosmology and Astroparticle Physics, 2006, 2006, 002-002.	1.9	70
17	Testable polarization predictions for models of CMB isotropy anomalies. Physical Review D, 2008, 77, .	1.6	63
18	No New Cosmological Concordance with Massive Sterile Neutrinos. Physical Review Letters, 2014, 113, 041301.	2.9	63

#	Article	IF	Citations
19	Estimating the large-scale angular power spectrum in the presence of systematics: a case study of Sloan Digital Sky Survey quasars. Monthly Notices of the Royal Astronomical Society, 2013, 435, 1857-1873.	1.6	62
20	Constraining monodromy inflation. Journal of Cosmology and Astroparticle Physics, 2013, 2013, 018-018.	1.9	60
21	Primordial black holes, eternal inflation, and the inflationary parameter space after WMAP5. Journal of Cosmology and Astroparticle Physics, 2008, 2008, 024.	1.9	56
22	First Observational Tests of Eternal Inflation. Physical Review Letters, 2011, 107, 071301.	2.9	56
23	On minimally parametric primordial power spectrum reconstruction and the evidence for a red tilt. Journal of Cosmology and Astroparticle Physics, 2008, 2008, 009.	1.9	55
24	Fast Computation of Bispectrum Features with Generalized Slow Roll. Physical Review D, 2011, 84, .	1.6	55
25	The shape of the primordial power spectrum: A last stand before Planck data. Physical Review D, 2010, 81, .	1.6	54
26	Simple Predictions from Multifield Inflationary Models. Physical Review Letters, 2014, 112, 161302.	2.9	54
27	Unbiased Hubble constant estimation from binary neutron star mergers. Physical Review D, 2019, 100, .	1.6	50
28	Bayesian emulator optimisation for cosmology: application to the Lyman-alpha forest. Journal of Cosmology and Astroparticle Physics, 2019, 2019, 031-031.	1.9	49
29	First observational tests of eternal inflation: Analysis methods and WMAP 7-year results. Physical Review D, 2011, 84, .	1.6	48
30	Deciphering inflation with gravitational waves: Cosmic microwave background polarization vs direct detection with laser interferometers. Physical Review D, 2006, 73, .	1.6	45
31	Exploiting the full potential of photometric quasar surveys: optimal power spectra through blind mitigation of systematics. Monthly Notices of the Royal Astronomical Society, 2014, 444, 2-14.	1.6	45
32	Inverted initial conditions: Exploring the growth of cosmic structure and voids. Physical Review D, 2016, 93, .	1.6	45
33	Machine learning cosmological structure formation. Monthly Notices of the Royal Astronomical Society, 2018, 479, 3405-3414.	1.6	45
34	New Semiclassical Picture of Vacuum Decay. Physical Review Letters, 2019, 123, 031601.	2.9	44
35	An emulator for the Lyman-Î± forest. Journal of Cosmology and Astroparticle Physics, 2019, 2019, 050-050.	1.9	44
36	Implications of a running spectral index for slow roll inflation. Journal of Cosmology and Astroparticle Physics, 2006, 2006, 010-010.	1.9	43

#	ARTICLE	IF	CITATIONS
37	Optimization of the Observing Cadence for the Rubin Observatory Legacy Survey of Space and Time: A Pioneering Process of Community-focused Experimental Design. Astrophysical Journal, Supplement Series, 2022, 258, 1.	3.0	40
38	Bayesian analysis of inflation. III. Slow roll reconstruction using model selection. Physical Review D, 2012, 86, .	1.6	39
39	Determining the outcome of cosmic bubble collisions in full general relativity. Physical Review D, 2012, 85, .	1.6	38
40	(Lack of) Cosmological evidence for dark radiation after Planck. Journal of Cosmology and Astroparticle Physics, 2013, 2013, 013-013.	1.9	37
41	The cut-sky cosmic microwave background is not anomalous. Physical Review D, 2010, 81, .	1.6	36
42	MULTIMODECODE: an efficient numerical solver for multifield inflation. Journal of Cosmology and Astroparticle Physics, 2015, 2015, 005-005.	1.9	34
43	SPECULATOR: Emulating Stellar Population Synthesis for Fast and Accurate Galaxy Spectra and Photometry. Astrophysical Journal, Supplement Series, 2020, 249, 5.	3.0	33
44	Simulating the universe(s): from cosmic bubble collisions to cosmological observables with numerical relativity. Journal of Cosmology and Astroparticle Physics, 2014, 2014, 030-030.	1.9	31
45	Gravitational Wave Consistency Relations for Multifield Inflation. Physical Review Letters, 2015, 114, 031301.	2.9	28
46	Unbiased methods for removing systematics from galaxy clustering measurements. Monthly Notices of the Royal Astronomical Society, 2016, 456, 2095-2104.	1.6	28
47	Towards the cold atom analog false vacuum. Journal of High Energy Physics, 2018, 2018, 1.	1.6	28
48	An interpretable machine-learning framework for dark matter halo formation. Monthly Notices of the Royal Astronomical Society, 2019, 490, 331-342.	1.6	27
49	Serendipitous discoveries of kilonovae in the LSST main survey: maximizing detections of sub-threshold gravitational wave events. Monthly Notices of the Royal Astronomical Society, 2019, 485, 4260-4273.	1.6	26
50	GenetICâ€”A New Initial Conditions Generator to Support Genetically Modified Zoom Simulations. Astrophysical Journal, Supplement Series, 2021, 252, 28.	3.0	24
51	An emulator for the Lyman-Î± forest in beyond-Î›CDM cosmologies. Journal of Cosmology and Astroparticle Physics, 2021, 2021, 033.	1.9	24
52	Nonlinear dynamics of the cold atom analog false vacuum. Journal of High Energy Physics, 2019, 2019, 1.	1.6	24
53	Limits on the Light Dark Matterâ€"Proton Cross Section from Cosmic Large-Scale Structure. Physical Review Letters, 2022, 128, 171301.	2.9	23
54	General framework for cosmological dark matter bounds using <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>N</mml:mi></mml:math> -body simulations. Physical Review D, 2021, 103, .	1.6	21

#	Article	IF	Citations
55	Bayesian inflationary reconstructions from <i>Planck</i> 2018 data. Physical Review D, 2019, 100, .	1.6	20
56	Is there evidence for additional neutrino species from cosmology?. Journal of Cosmology and Astroparticle Physics, 2013, 2013, 036-036.	1.9	19
57	Simulating the universe(s) II: phenomenology of cosmic bubble collisions in full general relativity. Journal of Cosmology and Astroparticle Physics, 2014, 2014, 024-024.	1.9	19
58	Prospects for Measuring the Hubble Constant with Neutron-Starâ€"Black-Hole Mergers. Physical Review Letters, 2021, 126, 171102.	2.9	19
59	Cosmological constraints on dissipative models of inflation. Journal of Cosmology and Astroparticle Physics, 2008, 2008, 027.	1.9	18
60	A Novel Sampling Theorem on the Rotation Group. IEEE Signal Processing Letters, 2015, 22, 2425-2429.	2.1	18
61	Hierarchical Bayesian detection algorithm for early-universe relics in the cosmic microwave background. Physical Review D, 2013, 88, .	1.6	16
62	Correlations in the three-dimensional Lyman-alpha forest contaminated by high column density absorbers. Monthly Notices of the Royal Astronomical Society, 2018, 476, 3716-3728.	1.6	16
63	Designing and testing inflationary models with Bayesian networks. Journal of Cosmology and Astroparticle Physics, 2016, 2016, 049-049.	1.9	15
64	Brane inflation and the overshoot problem. Physical Review D, 2009, 80, .	1.6	14
65	Constraining cosmological ultralarge scale structure using numerical relativity. Physical Review D, 2017, 96, .	1.6	14
66	Lecture notes on the physics of cosmic microwave background anisotropies. , 2009, , .		13
67	CMB isotropy anomalies and the local kinetic Sunyaev-Zelâ€™dovich effect. Physical Review D, 2010, 81, .	1.6	13
68	A framework for testing isotropy with the cosmic microwave background. Monthly Notices of the Royal Astronomical Society, 2016, 462, 1802-1811.	1.6	13
69	Wavelet reconstruction of<i>E</i>and<i>B</i>modes for CMB polarization and cosmic shear analyses. Monthly Notices of the Royal Astronomical Society, 2017, 466, 3728-3740.	1.6	13
70	The Impact of Observing Strategy on Cosmological Constraints with LSST. Astrophysical Journal, Supplement Series, 2022, 259, 58.	3.0	13
71	Fine-tuning criteria for inflation and the search for primordial gravitational waves. Physical Review D, 2008, 78, .	1.6	12
72	Avoiding bias in reconstructing the largest observable scales from partial-sky data. Physical Review D, 2011, 84, .	1.6	12

#	Article	IF	Citations
73	A Slowly Precessing Disk in the Nucleus of M31 as the Feeding Mechanism for a Central Starburst. Astrophysical Journal, 2018, 854, 121.	1.6	12
74	Target neutrino mass precision for determining the neutrino hierarchy. Physical Review D, 2020, 101, .	1.6	12
75	Robust Constraint on Cosmic Textures from the Cosmic Microwave Background. Physical Review Letters, 2012, 108, 241301.	2.9	11
76	3D weak lensing with spin wavelets on the ball. Physical Review D, 2015, 92, .	1.6	11
77	Angular momentum evolution can be predicted from cosmological initial conditions. Monthly Notices of the Royal Astronomical Society, 2021, 502, 5480-5486.	1.6	11
78	Simulating the universe(s) III: observables for the full bubble collision spacetime. Journal of Cosmology and Astroparticle Physics, 2016, 2016, 020-020.	1.9	10
79	How to build a catalogue of linearly evolving cosmic voids. Monthly Notices of the Royal Astronomical Society, 2020, 500, 4173-4180.	1.6	8
80	Considerations for Optimizing the Photometric Classification of Supernovae from the Rubin Observatory. Astrophysical Journal, Supplement Series, 2022, 258, 23.	3.0	8
81	Discovering the building blocks of dark matter halo density profiles with neural networks. Physical Review D, 2022, 105, .	1.6	8
82	First yearWilkinson Microwave Anisotropy Proberesults: Implications for cosmology and inflation. Contemporary Physics, 2005, 46, 77-91.	0.8	6
83	Photometric constraints on white dwarfs and the identification of extreme objects. Monthly Notices of the Royal Astronomical Society, 2009, 399, 699-714.	1.6	6
84	Sparse inpainting and isotropy. Journal of Cosmology and Astroparticle Physics, 2014, 2014, 050-050.	1.9	5
85	Quantifying the rarity of the local super-volume. Monthly Notices of the Royal Astronomical Society, 2021, 507, 5425-5431.	1.6	5
86	The large-scale environment of thermonuclear and core-collapse supernovae. Monthly Notices of the Royal Astronomical Society, 2021, 510, 366-372.	1.6	5
87	The causal effect of environment on halo mass and concentration. Monthly Notices of the Royal Astronomical Society, 2021, 508, 1189-1194.	1.6	4
88	On spin scale-discretised wavelets on the sphere for the analysis of CMB polarisation. Proceedings of the International Astronomical Union, 2014, 10, 64-67.	0.0	3
89	Considerations in the Interpretation of Cosmological Anomalies. Proceedings of the International Astronomical Union, 2014, 10, 124-130.	0.0	3
90	Forecasting constraints from the cosmic microwave background on eternal inflation. Physical Review D, 2015, 92, .	1.6	2

#	Article	IF	Citations
91	Cosmic microwave background science at commercial airline altitudes. Monthly Notices of the Royal Astronomical Society: Letters, 2017, 469, L6-L10.	1.2	1
92	Accretion of a symmetry-breaking scalar field by a Schwarzschild black hole. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2018, 376, 20170122.	1.6	1
93	A Bayesian model for inferring properties of the local white dwarf population in astrometric and photometric surveys. Monthly Notices of the Royal Astronomical Society, 2019, 485, 179-188.	1.6	1
94	Back to Normal! Gaussianizing posterior distributions for cosmological probes. Proceedings of the International Astronomical Union, 2014, 10, 13-15.	0.0	0
95	Measuring the clustering of photometric quasars through blind mitigation of systematics. Proceedings of the International Astronomical Union, 2014, 10, 243-246.	0.0	0