Hiranya V Peiris

List of Publications by Year
in descending order

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

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

#	Article	IF	Citations
1	Considerations for Optimizing the Photometric Classification of Supernovae from the Rubin Observatory. Astrophysical Journal, Supplement Series, 2022, 258, 23.	3.0	8
2	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
3	The Impact of Observing Strategy on Cosmological Constraints with LSST. Astrophysical Journal, Supplement Series, 2022, 259, 58.	3.0	13
4	Limits on the Light Dark Matterâ€“Proton Cross Section from Cosmic Large-Scale Structure. Physical Review Letters, 2022, 128, 171301.	2.9	23
5	Discovering the building blocks of dark matter halo density profiles with neural networks. Physical Review D, 2022, 105, .	1.6	8
6	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
7	Strong Bound on Canonical Ultralight Axion Dark Matter from the Lyman-Alpha Forest. Physical Review Letters, 2021, 126, 071302.	2.9	134
8	GenetICâ€”A New Initial Conditions Generator to Support Genetically Modified Zoom Simulations. Astrophysical Journal, Supplement Series, 2021, 252, 28.	3.0	24
9	Angular momentum evolution can be predicted from cosmological initial conditions. Monthly Notices of the Royal Astronomical Society, 2021, 502, 5480-5486.	1.6	11
10	Prospects for Measuring the Hubble Constant with Neutron-Starâ€“Black-Hole Mergers. Physical Review Letters, 2021, 126, 171102.	2.9	19
11	An emulator for the Lyman-Î± forest in beyond-ÎCDM cosmologies. Journal of Cosmology and Astroparticle Physics, 2021, 2021, 033.	1.9	24
12	Quantifying the rarity of the local super-volume. Monthly Notices of the Royal Astronomical Society, 2021, 507, 5425-5431.	1.6	5
13	The causal effect of environment on halo mass and concentration. Monthly Notices of the Royal Astronomical Society, 2021, 508, 1189-1194.	1.6	4
14	The large-scale environment of thermonuclear and core-collapse supernovae. Monthly Notices of the Royal Astronomical Society, 2021, 510, 366-372.	1.6	5
15	SPECULATOR: Emulating Stellar Population Synthesis for Fast and Accurate Galaxy Spectra and Photometry. Astrophysical Journal, Supplement Series, 2020, 249, 5.	3.0	33
16	Target neutrino mass precision for determining the neutrino hierarchy. Physical Review D, 2020, 101, .	1.6	12
17	How to build a catalogue of linearly evolving cosmic voids. Monthly Notices of the Royal Astronomical Society, 2020, 500, 4173-4180.	1.6	8
18	New Semiclassical Picture of Vacuum Decay. Physical Review Letters, 2019, 123, 031601.	2.9	44

#	Article	IF	Citations
19	An emulator for the Lyman-Î± forest. Journal of Cosmology and Astroparticle Physics, 2019, 2019, 050-050.	1.9	44
20	An interpretable machine-learning framework for dark matter halo formation. Monthly Notices of the Royal Astronomical Society, 2019, 490, 331-342.	1.6	27
21	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
22	Bayesian emulator optimisation for cosmology: application to the Lyman-alpha forest. Journal of Cosmology and Astroparticle Physics, 2019, 2019, 031-031.	1.9	49
23	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
24	Prospects for Resolving the Hubble Constant Tension with Standard Sirens. Physical Review Letters, 2019, 122, 061105.	2.9	143
25	Unbiased Hubble constant estimation from binary neutron star mergers. Physical Review D, 2019, 100, .	1.6	50
26	Bayesian inflationary reconstructions from Planck 2018 data. Physical Review D, 2019, 100, .	1.6	20
27	Nonlinear dynamics of the cold atom analog false vacuum. Journal of High Energy Physics, 2019, 2019, 1.	1.6	24
28	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
29	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
30	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
31	Towards the cold atom analog false vacuum. Journal of High Energy Physics, 2018, 2018, 1.	1.6	28
32	Machine learning cosmological structure formation. Monthly Notices of the Royal Astronomical Society, 2018, 479, 3405-3414.	1.6	45
33	Constraining cosmological ultralarge scale structure using numerical relativity. Physical Review D, 2017, 96, .	1.6	14
34	Wavelet reconstruction ofEandBmodes for CMB polarization and cosmic shear analyses. Monthly Notices of the Royal Astronomical Society, 2017, 466, 3728-3740.	1.6	13
35	Cosmic microwave background science at commercial airline altitudes. Monthly Notices of the Royal Astronomical Society: Letters, 2017, 469, L6-L10.	1.2	1
36	A framework for testing isotropy with the cosmic microwave background. Monthly Notices of the Royal Astronomical Society, 2016, 462, 1802-1811.	1.6	13

#	Article	IF	Citations
37	PHOTOMETRIC SUPERNOVA CLASSIFICATION WITH MACHINE LEARNING. Astrophysical Journal, Supplement Series, 2016, 225, 31.	3.0	138
38	How Isotropic is the Universe?. Physical Review Letters, 2016, 117, 131302.	2.9	105
39	Inverted initial conditions: Exploring the growth of cosmic structure and voids. Physical Review D, 2016, 93, .	1.6	45
40	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
41	Designing and testing inflationary models with Bayesian networks. Journal of Cosmology and Astroparticle Physics, 2016, 2016, 049-049.	1.9	15
42	Unbiased methods for removing systematics from galaxy clustering measurements. Monthly Notices of the Royal Astronomical Society, 2016, 456, 2095-2104.	1.6	28
43	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
44	Forecasting constraints from the cosmic microwave background on eternal inflation. Physical Review D, 2015, 92, .	1.6	2
45	3D weak lensing with spin wavelets on the ball. Physical Review D, 2015, 92, .	1.6	11
46	Gravitational Wave Consistency Relations for Multifield Inflation. Physical Review Letters, 2015, 114, 031301.	2.9	28
47	A Novel Sampling Theorem on the Rotation Group. IEEE Signal Processing Letters, 2015, 22, 2425-2429.	2.1	18
48	MULTIMODECODE: an efficient numerical solver for multifield inflation. Journal of Cosmology and Astroparticle Physics, 2015, 2015, 005-005.	1.9	34
49	Sparse inpainting and isotropy. Journal of Cosmology and Astroparticle Physics, 2014, 2014, 050-050.	1.9	5
50	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
51	Simple Predictions from Multifield Inflationary Models. Physical Review Letters, 2014, 112, 161302.	2.9	54
52	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
53	No New Cosmological Concordance with Massive Sterile Neutrinos. Physical Review Letters, 2014, 113, 041301.	2.9	63
54	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

#	Article	IF	Citations
55	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
56	Back to Normal! Gaussianizing posterior distributions for cosmological probes. Proceedings of the International Astronomical Union, 2014, 10, 13-15.	0.0	0
57	Measuring the clustering of photometric quasars through blind mitigation of systematics. Proceedings of the International Astronomical Union, 2014, 10, 243-246.	0.0	0
58	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
59	Considerations in the Interpretation of Cosmological Anomalies. Proceedings of the International Astronomical Union, 2014, 10, 124-130.	0.0	3
60	Is there evidence for additional neutrino species from cosmology?. Journal of Cosmology and Astroparticle Physics, 2013, 2013, 036-036.	1.9	19
61	(Lack of) Cosmological evidence for dark radiation after Planck. Journal of Cosmology and Astroparticle Physics, 2013, 2013, 013-013.	1.9	37
62	Constraining monodromy inflation. Journal of Cosmology and Astroparticle Physics, 2013, 2013, 018-018.	1.9	60
63	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
64	Hierarchical Bayesian detection algorithm for early-universe relics in the cosmic microwave background. Physical Review D, 2013, 88, .	1.6	16
65	Robust Constraint on Cosmic Textures from the Cosmic Microwave Background. Physical Review Letters, 2012, 108, 241301.	2.9	11
66	Bayesian analysis of inflation. II. Model selection and constraints on reheating. Physical Review D, 2012, 85, .	1.6	109
67	Determining the outcome of cosmic bubble collisions in full general relativity. Physical Review D, 2012, 85, .	1.6	38
68	Bayesian analysis of inflation. III. Slow roll reconstruction using model selection. Physical Review D, 2012, 86, .	1.6	39
69	Avoiding bias in reconstructing the largest observable scales from partial-sky data. Physical Review D, 2011, 84, .	1.6	12
70	Fast Computation of Bispectrum Features with Generalized Slow Roll. Physical Review D, 2011, 84, .	1.6	55
71	First observational tests of eternal inflation: Analysis methods and WMAP 7-year results. Physical Review D, 2011, 84, .	1.6	48
72	Bayesian analysis of inflation: Parameter estimation for single field models. Physical Review D, 2011, 83, .	1.6	80

#	Article	IF	Citations
73	First Observational Tests of Eternal Inflation. Physical Review Letters, 2011, 107, 071301.	2.9	56
74	Minimally parametric power spectrum reconstruction from the Lyman Î± forest. Monthly Notices of the Royal Astronomical Society, 2011, 413, 1717-1728.	1.6	82
75	The cut-sky cosmic microwave background is not anomalous. Physical Review D, 2010, 81, .	1.6	36
76	The shape of the primordial power spectrum: A last stand before Planck data. Physical Review D, 2010, 81, .	1.6	54
77	CMB isotropy anomalies and the local kinetic Sunyaev-Zelâ€™dovich effect. Physical Review D, 2010, 81, .	1.6	13
78	Lecture notes on the physics of cosmic microwave background anisotropies. , 2009, , .		13
79	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
80	Brane inflation and the overshoot problem. Physical Review D, 2009, 80, .	1.6	14
81	CMB polarization features from inflation versus reionization. Physical Review D, 2009, 79, .	1.6	109
82	Probing Inflation with CMB Polarization. , 2009, , .		252
83	Fine-tuning criteria for inflation and the search for primordial gravitational waves. Physical Review D, 2008, 78, .	1.6	12
84	Comparing infrared Dirac-Born-Infeld brane inflation to observations. Physical Review D, 2008, 77, .	1.6	76
85	Testable polarization predictions for models of CMB isotropy anomalies. Physical Review D, 2008, 77, .	1.6	63
86	Primordial black holes, eternal inflation, and the inflationary parameter space after WMAP5. Journal of Cosmology and Astroparticle Physics, 2008, 2008, 024.	1.9	56
87	Cosmological constraints on dissipative models of inflation. Journal of Cosmology and Astroparticle Physics, 2008, 2008, 027.	1.9	18
88	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
89	Phenomenology of D-brane inflation with general speed of sound. Physical Review D, 2007, 76, .	1.6	82
90	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

#	Article	IF	Citations
91	Deciphering inflation with gravitational waves: Cosmic microwave background polarization vs direct detection with laser interferometers. Physical Review D, 2006, 73, .	1.6	45
92	Implications of a running spectral index for slow roll inflation. Journal of Cosmology and Astroparticle Physics, 2006, 2006, 010-010.	1.9	43
93	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
94	Considerations in optimizing CMB polarization experiments to constrain inflationary physics. Journal of Cosmology and Astroparticle Physics, 2006, 2006, 019-019.	1.9	94
95	First yearWilkinson Microwave Anisotropy Proberesults: Implications for cosmology and inflation. Contemporary Physics, 2005, 46, 77-91.	0.8	6