Eiichiro Komatsu

List of Publications by Year
in descending order

82 papers	27,837 citations	50244 46 h-index	58549 82 g-index
83 all docs	83 docs citations	83 times ranked	14987 citing authors

#	Article	IF	Citations
1	SEVEN-YEAR WILKINSON MICROWAVE ANISOTROPY PROBE (WMAP) OBSERVATIONS: COSMOLOGICAL INTERPRETATION. Astrophysical Journal, Supplement Series, 2011, 192, 18.	3.0	6,656
2	FIVE-YEARWILKINSON MICROWAVE ANISOTROPY PROBEOBSERVATIONS: COSMOLOGICAL INTERPRETATION. Astrophysical Journal, Supplement Series, 2009, 180, 330-376.	3.0	4,114
3	NINE-YEAR WILKINSON MICROWAVE ANISOTROPY PROBE (WMAP) OBSERVATIONS: COSMOLOGICAL PARAMETER RESULTS. Astrophysical Journal, Supplement Series, 2013, 208, 19.	3.0	3,998
4	Firstâ€Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Preliminary Maps and Basic Results. Astrophysical Journal, Supplement Series, 2003, 148, 1-27.	3.0	3,843
5	NINE-YEAR WILKINSON MICROWAVE ANISOTROPY PROBE (WMAP) OBSERVATIONS: FINAL MAPS AND RESULTS. Astrophysical Journal, Supplement Series, 2013, 208, 20.	3.0	1,810
6	Acoustic signatures in the primary microwave background bispectrum. Physical Review D, 2001, 63, .	1.6	803
7	Threeâ€Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Temperature Analysis. Astrophysical Journal, Supplement Series, 2007, 170, 288-334.	3.0	778
8	H0LiCOW â€“ XIII. A 2.4 per cent measurement of H0 from lensed quasars: 5.3Ïƒ tension between early- and late-Universe probes. Monthly Notices of the Royal Astronomical Society, 2020, 498, 1420-1439.	1.6	632
9	Firstâ€Year Wilkinson Microwave Anisotropy Probe (WMAP) Observations: Tests of Gaussianity. Astrophysical Journal, Supplement Series, 2003, 148, 119-134.	3.0	534
10	The Sunyaev-Zel'dovich angular power spectrum as a probe of cosmological parameters. Monthly Notices of the Royal Astronomical Society, 2002, 336, 1256-1270.	1.6	355
11	Cosmology intertwined: A review of the particle physics, astrophysics, and cosmology associated with the cosmological tensions and anomalies. Journal of High Energy Astrophysics, 2022, 34, 49-211.	2.4	350
12	Improved calculation of the primordial gravitational wave spectrum in the standard model. Physical Review D, 2006, 73, .	1.6	203
13	LiteBIRD: A Satellite for the Studies of B-Mode Polarization and Inflation from Cosmic Background Radiation Detection. Journal of Low Temperature Physics, 2019, 194, 443-452.	0.6	193
14	Hunting for primordial non-Gaussianity in the cosmic microwave background. Classical and Quantum Gravity, 2010, 27, 124010.	1.5	189
15	Universal gas density and temperature profile. Monthly Notices of the Royal Astronomical Society, 2001, 327, 1353-1366.	1.6	177
16	Sunyaev-Zeldovich Fluctuations from Spatial Correlations between Clusters of Galaxies. Astrophysical Journal, 1999, 526, L1-L4.	1.6	174
17	Complete constraints on a nonminimally coupled chaotic inflationary scenario from the cosmic microwave background. Physical Review D, 1999, 59, .	1.6	169
18	Perturbation Theory Reloaded: Analytical Calculation of Nonlinearity in Baryonic Oscillations in the Realâ€Space Matter Power Spectrum. Astrophysical Journal, 2006, 651, 619-626.	1.6	158

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19	THE HETDEX PILOT SURVEY. II. THE EVOLUTION OF THE LyÎ± ESCAPE FRACTION FROM THE ULTRAVIOLET SLOPE AND LUMINOSITY FUNCTION OF 1.9 <i>z< 3.8 LAEs. Astrophysical Journal, 2011, 736, 31.	1.6	152
20	SZ effects in the Magneticum Pathfinder simulation: comparison with thePlanck, SPT, and ACT results. Monthly Notices of the Royal Astronomical Society, 2016, 463, 1797-1811.	1.6	135
21	THE HETDEX PILOT SURVEY. I. SURVEY DESIGN, PERFORMANCE, AND CATALOG OF EMISSION-LINE GALAXIES. Astrophysical Journal, Supplement Series, 2011, 192, 5.	3.0	134
22	New Extraction of the Cosmic Birefringence from the Planck 2018 Polarization Data. Physical Review Letters, 2020, 125, 221301.	2.9	119
23	Limits on anisotropic inflation from the Planck data. Physical Review D, 2013, 88, .	1.6	104
24	Power spectrum of the Sunyaev-Zelâ€™dovich effect. Physical Review D, 2000, 61, .	1.6	99
25	Exploring Cluster Physics with High-Resolution Sunyaev-Zelâ€™dovich Effect Images and X-Ray Data: The Case of the Most X-Ray-Luminous Galaxy Cluster RX J1347â€”1145. Publication of the Astronomical Society of Japan, 2004, 56, 17-28.	1.0	81
26	Finding the chiral gravitational wave background of an axion- <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>S</mml:mi><mml:mi>U</mml:mi><mml:mo stretchy="false">(</mml:mo><mml:mn>2</mml:mn><mml:mo stretchy="false">)</mml:mo></mml:math> inflationary model using CMB observations and laser interferometers. Physical Review D, 2018, 97, .	1.6	81
27	Substructures Revealed by the Sunyaevâ€“Zelâ€™dovich Effect at 150 GHz in a High-Resolution Map of RX J1347$-$1145. Publication of the Astronomical Society of Japan, 2001, 53, 57-62.	1.0	78
28	PERTURBATION THEORY RELOADED. II. NONLINEAR BIAS, BARYON ACOUSTIC OSCILLATIONS, AND MILLENNIUM SIMULATION IN REAL SPACE. Astrophysical Journal, 2009, 691, 569-595.	1.6	75
29	Large tensor non-Gaussianity from axion-gauge field dynamics. Physical Review D, 2018, 97, .	1.6	68
30	Dark energy constraints from the thermal Sunyaevâ€“Zeldovich power spectrum. Monthly Notices of the Royal Astronomical Society, 2018, 477, 4957-4967.	1.6	66
31	EXTRACTING ANGULAR DIAMETER DISTANCE AND EXPANSION RATE OF THE UNIVERSE FROM TWO-DIMENSIONAL GALAXY POWER SPECTRUM AT HIGH REDSHIFTS: BARYON ACOUSTIC OSCILLATION FITTING VERSUS FULL MODELING. Astrophysical Journal, 2009, 693, 1404-1416.	1.6	65
32	Analytical model for non-thermal pressure in galaxy clusters. Monthly Notices of the Royal Astronomical Society, 2014, 442, 521-532.	1.6	61
33	Measuring the spectrum of primordial gravitational waves with CMB, PTA and laser interferometers. Journal of Cosmology and Astroparticle Physics, 2021, 2021, 012-012.	1.9	60
34	Analytical model for non-thermal pressure in galaxy clusters â€“ III. Removing the hydrostatic mass bias. Monthly Notices of the Royal Astronomical Society, 2016, 455, 2936-2944.	1.6	59
35	Analytical model for non-thermal pressure in galaxy clusters â€“ II. Comparison with cosmological hydrodynamics simulation. Monthly Notices of the Royal Astronomical Society, 2015, 448, 1020-1029.	1.6	58
36	Measuring angular diameter distances of strong gravitational lenses. Journal of Cosmology and Astroparticle Physics, 2015, 2015, 033-033.	1.9	58

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37	The Hobbyâ€“Eberly Telescope Dark Energy Experiment (HETDEX) Survey Design, Reductions, and Detections*. Astrophysical Journal, 2021, 923, 217.	1.6	55
38	Submillimeter Detection of the Sunyaev-Zeldovich Effect toward the Most Luminous X-Ray Cluster at [CLC] [ITAL]z [/ITAL] [/CLC] = 0.45. Astrophysical Journal, 1999, 516, L1-L4.	1.6	54
39	Cosmic Birefringence from thePlanckData Release 4. Physical Review Letters, 2022, 128, 091302.	2.9	54
40	Simultaneous determination of the cosmic birefringence and miscalibrated polarization angles from CMB experiments. Progress of Theoretical and Experimental Physics, 2019, 2019, .	1.8	52
41	The HETDEX Instrumentation: Hobbyâ€“Eberly Telescope Wide-field Upgrade and VIRUS. Astronomical Journal, 2021, 162, 298.	1.9	52
42	Deconstructing the neutrino mass constraint from galaxy redshift surveys. Journal of Cosmology and Astroparticle Physics, 2018, 2018, 035-035.	1.9	50
43	Tensor non-Gaussianity from axion-gauge-fields dynamics: parameter search. Journal of Cosmology and Astroparticle Physics, 2018, 2018, 027-027.	1.9	49
44	Generating log-normal mock catalog of galaxies in redshift space. Journal of Cosmology and Astroparticle Physics, 2017, 2017, 003-003.	1.9	48
45	New Constraint on Early Dark Energy from Planck and BOSS Data Using the Profile Likelihood. Astrophysical Journal Letters, 2022, 929, L16.	3.0	48
46	New physics from the polarized light of the cosmic microwave background. Nature Reviews Physics, 2022, 4, 452-469.	11.9	46
47	A measurement of the Hubble constant from angular diameter distances to two gravitational lenses. Science, 2019, 365, 1134-1138.	6.0	44
48	Joint analysis of the thermal Sunyaevâ€“Zeldovich effect and 2MASS galaxies: probing gas physics in the local Universe and beyond. Monthly Notices of the Royal Astronomical Society, 2018, 480, 3928-3941.	1.6	39
49	The Cosmic Thermal History Probed by Sunyaevâ€“Zeldovich Effect Tomography. Astrophysical Journal, 2020, 902, 56.	1.6	36
50	The Sunyaevâ€“Zel'dovich effect at 5â€³: RX J1347.5â^'1145 imaged by ALMA. Publication of the Astronomical Society of Japan, 2016, 68, .	1.0	32
51	Production and backreaction of spin-2 particles of SU(2) gauge field during inflation. Journal of High Energy Physics, 2019, 2019, 1.	1.6	31
52	Suzaku broad-band spectroscopy of RXÂJ1347.5â€“1145: constraints on the extremely hot gas and non-thermal emission. Astronomy and Astrophysics, 2008, 491, 363-377.	2.1	31
53	Bayesian Redshift Classification of Emission-line Galaxies with Photometric Equivalent Widths. Astrophysical Journal, 2017, 843, 130.	1.6	26
54	Schwinger effect by an SU(2) gauge field during inflation. Journal of High Energy Physics, 2019, 2019, 1.	1.6	26

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55	Simultaneous determination of the cosmic birefringence and miscalibrated polarization angles II: Including cross-frequency spectra. Progress of Theoretical and Experimental Physics, 2020, 2020, .	1.8	25
56	Galaxy redshift surveys with sparse sampling. Journal of Cosmology and Astroparticle Physics, 2013, 2013, 030-030.	1.9	23
57	A Cool Core Disturbed: Observational Evidence for the Coexistence of Subsonic Sloshing Gas and Stripped Shock-heated Gas around the Core of RX J1347.5â€“1145. Astrophysical Journal, 2018, 866, 48.	1.6	20
58	Is cosmic birefringence due to dark energy or dark matter? A tomographic approach. Physical Review D, 2022, 105, .	1.6	20
59	Angular power spectrum of galaxies in the 2MASS Redshift Survey. Monthly Notices of the Royal Astronomical Society, 2018, 473, 4318-4325.	1.6	19
60	Unbiased Cosmological Parameter Estimation from Emission-line Surveys with Interlopers. Astrophysical Journal, 2019, 876, 32.	1.6	19
61	Measuring patchy reionization with kSZ2-21â€‰cm correlations. Monthly Notices of the Royal Astronomical Society, 2018, 476, 4025-4031.	1.6	18
62	New constraints on the mass bias of galaxy clusters from the power spectra of the thermal Sunyaevâ€“Zeldovich effect and cosmic shear. Publication of the Astronomical Society of Japan, 2020, 72, .	1.0	18
63	Effects of gravitational Chern-Simons during Axion-SU(2) inflation. Journal of Cosmology and Astroparticle Physics, 2020, 2020, 024-024.	1.9	18
64	Cosmology from clustering of LyÎ± galaxies: breaking non-gravitational LyÎ± radiative transfer degeneracies using the bispectrum. Monthly Notices of the Royal Astronomical Society, 2013, 431, 1777-1794.	1.6	16
65	How attractive is the isotropic attractor solution of axion-SU(2) inflation?. Journal of Cosmology and Astroparticle Physics, 2020, 2020, 047-047.	1.9	16
66	The Impact of Line Misidentification on Cosmological Constraints from Euclid and Other Spectroscopic Galaxy Surveys. Astrophysical Journal, 2019, 879, 15.	1.6	15
67	Correcting correlation functions for redshift-dependent interloper contamination. Monthly Notices of the Royal Astronomical Society, 2021, 507, 3187-3206.	1.6	15
68	Surface Brightness Profile of Lyman-Î± Halos out to 320 kpc in HETDEX. Astrophysical Journal, 2022, 929, 90.	1.6	15
69	Delta-map method of removing CMB foregrounds with spatially varying spectra. Progress of Theoretical and Experimental Physics, 2019, 2019, .	1.8	14
70	Reconstruction of primordial tensor power spectra from <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>B</mml:mi></mml:math> -mode polarization of the cosmic microwave background. Physical Review D, 2018, 97, .	1.6	13
71	Deeply cooled core of the Phoenix galaxy cluster imaged by ALMA with the Sunyaevâ€“Zelâ€™dovich effect. Publication of the Astronomical Society of Japan, 2020, 72, .	1.0	11
72	TDCOSMO. Astronomy and Astrophysics, 2021, 652, A7.	2.1	11

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73	The isotropic attractor solution of axion-SU(2) inflation: universal isotropization in Bianchi type-I geometry. Journal of Cosmology and Astroparticle Physics, 2021, 2021, 031.	1.9	11
74	Testing the Gaussianity and Statistical Isotropy of the Universe. Advances in Astronomy, 2010, 2010, 1-1.	0.5	10
75	In-flight polarization angle calibration for LiteBIRD: blind challenge and cosmological implications. Journal of Cosmology and Astroparticle Physics, 2022, 2022, 039.	1.9	9
76	Axion-gauge field dynamics with backreaction. Journal of Cosmology and Astroparticle Physics, 2022, 2022, 010.	1.9	9
77	AKARI near-infrared background fluctuations arise from normal galaxy populations. Monthly Notices of the Royal Astronomical Society: Letters, 2017, 467, L36-L40.	1.2	6
78	The Thermal and Gravitational Energy Densities in the Large-scale Structure of the Universe. Astrophysical Journal, 2021, 910, 32.	1.6	6
79	Testing the Sunyaev-Zeldovich-based tomographic approach to the thermal history of the Universe with pressure-density cross correlations: Insights from the Magneticum simulation. Physical Review D, 2021, 104, .	1.6	6
80	Lattice simulations of Abelian gauge fields coupled to axions during inflation. Physical Review D, 2022, 105, .	1.6	5
81	Ray-tracing log-normal simulation for weak gravitational lensing: application to the cross-correlation with galaxies. Journal of Cosmology and Astroparticle Physics, 2021, 2021, 095.	1.9	4
82	The effect of our local motion on the Sandageâ€“Loeb test of the cosmic expansion. Publication of the Astronomical Society of Japan, 2020, 72, .	1.0	3