Masao Hayashi

List of Publications by Year
in descending order

73	3,203	136950 32	149698 56
papers	citations	h-index	g-index

74	74	74	3153
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The Hyper Suprime-Cam SSP Survey: Overview and survey design. Publication of the Astronomical Society of Japan, 2018, 70, .	2.5	566
2	First data release of the Hyper Suprime-Cam Subaru Strategic Program. Publication of the Astronomical Society of Japan, 2018, 70, .	2.5	327
3	On the evolution and environmental dependence of the star formation rate versus stellar mass relation since zÂâˆ¼ 2. Monthly Notices of the Royal Astronomical Society, 2013, 434, 423-436.	4.4	146
4	BULGE-FORMING GALAXIES WITH AN EXTENDED ROTATING DISK AT zÂâˆ¼Â2. Astrophysical Journal, 2017, 834, 135.	4.5	99
5	Panoramic HÎ± and mid-infrared mapping of star formation in a cluster. Monthly Notices of the Royal Astronomical Society, 2010, 403, 1611-1624.	4.4	84
6	Massive starburst galaxies in a z = 2.16 proto-cluster unveiled by panoramic HÎ± mapping. Monthly Notices of the Royal Astronomical Society, 2013, 428, 1551-1564.	4.4	82
7	A fundamental metallicity relation for galaxies at z = 0.84â€“1.47 from HiZELS. Monthly Notices of the Royal Astronomical Society, 2013, 436, 1130-1141.	4.4	80
8	A STARBURSTING PROTO-CLUSTER IN MAKING ASSOCIATED WITH A RADIO GALAXY AT<i>z</i>= 2.53 DISCOVERED BY HÎ± IMAGING. Astrophysical Journal, 2012, 757, 15.	4.5	78
9	High star formation activity in the central region of a distant cluster at<i>z</i>= 1.46. Monthly Notices of the Royal Astronomical Society, 2010, 402, 1980-1990.	4.4	71
10	Rotating Starburst Cores in Massive Galaxies at zÂ=Â2.5. Astrophysical Journal Letters, 2017, 841, L25.	8.3	67
11	â€œDIRECTâ€•GAS-PHASE METALLICITIES, STELLAR PROPERTIES, AND LOCAL ENVIRONMENTS OF EMISSION-LINE GALAXIES AT REDSHIFTS BELOW 0.90. Astrophysical Journal, 2014, 780, 122.	4.5	66
12	Molecular Gas Reservoirs in Cluster Galaxies at zÂ=Â1.46. Astrophysical Journal, 2018, 856, 118.	4.5	60
13	STAR FORMATION RATES AND METALLICITIES OF<i>K</i>-SELECTED STAR-FORMING GALAXIES AT<i>z</i>âˆ¼ 2. Astrophysical Journal, 2009, 691, 140-151.	4.5	57
14	An early phase of environmental effects on galaxy properties unveiled by near-infrared spectroscopy of protocluster galaxies at zÂ>Â2. Monthly Notices of the Royal Astronomical Society, 2015, 448, 666-680.	4.4	56
15	Properties of star-forming galaxies in a cluster and its surrounding structure at. Monthly Notices of the Royal Astronomical Society, 2011, 415, 2670-2687.	4.4	53
16	Identification of the progenitors of rich clusters and member galaxies in rapid formation at <i>z</i>Â> 2. Monthly Notices of the Royal Astronomical Society: Letters, 2014, 441, L1-L5.	3.3	53
17	Structural Evolution in Massive Galaxies at z âˆ¼ 2. Astrophysical Journal, 2020, 901, 74.	4.5	52
18	A LyÎ± EMITTER WITH AN EXTREMELY LARGE REST-FRAME EQUIVALENT WIDTH OF âˆ¼900 Ã… AT<i>z</i>= 6.5: A CANDIDATE POPULATION III-DOMINATED GALAXY?. Astrophysical Journal, 2012, 761, 85.	4.5	51

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19	Luminosityâ€Dependent Clustering of Starâ€formingBzKGalaxies at Redshift 2. Astrophysical Journal, 2007, 660, 72-80.	4.5	48
20	Correlation between star formation activity and electron density of ionized gas at z = 2.5. Monthly Notices of the Royal Astronomical Society, 2015, 451, 1284-1289.	4.4	47
21	MAHALO Deep Cluster Survey I. Accelerated and enhanced galaxy formation in the densest regions of a protocluster at zÂ=Â2.5. Monthly Notices of the Royal Astronomical Society, 2018, 473, 1977-1999.	4.4	43
22	Environmental impacts on molecular gas in protocluster galaxies at <i>z</i> âˆ¼ 2. Publication of the Astronomical Society of Japan, 2019, 71, .	2.5	43
23	Extremely Metal-poor Representatives Explored by the Subaru Survey (EMPRESS). I. A Successful Machine-learning Selection of Metal-poor Galaxies and the Discovery of a Galaxy with M* < 10⁶ M_{âŠ™} and 0.016 Z_{âŠ™}* â€ â€¡. Astrophysical Journal, 2020, 898, 142.	4.5	43
24	A CENSUS OF STAR-FORMING GALAXIES AT<i>z</i>= 1-3 IN THE SUBARU DEEP FIELD. Astrophysical Journal, 2011, 735, 91.	4.5	40
25	SXDF-ALMA 1.5 arcmin ² DEEP SURVEY: A COMPACT DUSTY STAR-FORMING GALAXY AT <i>z</i> = 2.5. Astrophysical Journal Letters, 2015, 811, L3.	8.3	39
26	A large-scale structure traced by [Oâ€ƒ<scp>ii</scp>] emitters hosting a distant cluster at<i>z</i>= 1.62. Monthly Notices of the Royal Astronomical Society, 2012, 423, 2617-2626.	4.4	38
27	THE ENVIRONMENTAL IMPACTS ON THE STAR FORMATION MAIN SEQUENCE: AN HÎ± STUDY OF THE NEWLY DISCOVERED RICH CLUSTER AT<i>z</i>= 1.52. Astrophysical Journal, 2014, 789, 18.	4.5	38
28	Evolutionary Phases of Gas-rich Galaxies in a Galaxy Cluster at zÂ=Â1.46. Astrophysical Journal Letters, 2017, 841, L21.	8.3	38
29	THE NATURE OF HÎ±-SELECTED GALAXIES AT<i>z</i>> 2. II. CLUMPY GALAXIES AND COMPACT STAR-FORMING GALAXIES. Astrophysical Journal, 2014, 780, 77.	4.5	37
30	MAHALO Deep Cluster Survey II. Characterizing massive forming galaxies in the Spiderweb protocluster at zÂ= 2.2. Monthly Notices of the Royal Astronomical Society, 2018, 481, 5630-5650.	4.4	37
31	Cosmic Star-Formation Activity at z = 2.2 Probed by H Î± Emission-Line Galaxies. Publication of the Astronomical Society of Japan, 2011, 63, S437-S446.	2.5	36
32	LYMAN BREAK GALAXIES AT<i>z</i>â‰ˆ 1.8-2.8:<i>GALEX</i>/NUV IMAGING OF THE SUBARU DEEP FIELD. Astrophysical Journal, 2009, 697, 1410-1432.	4.5	32
33	NATURE OF HÎ± SELECTED GALAXIES AT<i>z</i>> 2. I. MAIN-SEQUENCE AND DUSTY STAR-FORMING GALAXIES. Astrophysical Journal, 2013, 778, 114.	4.5	32
34	Calibrating [Oâ€‰ii] star formation rates at z < 1 from dual HÎ±-[Oâ€‰ii] imaging from HiZELS. Monthly Notices of the Royal Astronomical Society, 2013, 430, 1042-1050.	4.4	31
35	Predicting dust extinction properties of star-forming galaxies from HÎ±/UV ratio. Monthly Notices of the Royal Astronomical Society, 2015, 453, 879-892.	4.4	31
36	Direct evidence for Ly$oldsymbol{alpha }$ depletion in the protocluster core. Monthly Notices of the Royal Astronomical Society: Letters, 2017, 468, L21-L25.	3.3	31

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37	The Fraction of Active Galactic Nuclei in the USS 1558â€“003 Protocluster at zÂ=Â2.53. Astrophysical Journal, 2019, 874, 54.	4.5	28
38	Physical conditions of the interstellar medium in star-forming galaxies at <i>z</i>â€‰âˆ¼â€‰1.5. Publication of the Astronomical Society of Japan, 2015, 67, .	2.5	26
39	On the different levels of dust attenuation to nebular and stellar light in star-forming galaxies. Publication of the Astronomical Society of Japan, 2019, 71, .	2.5	25
40	THE STELLAR POPULATION AND STAR FORMATION RATES OF<i>z</i>â‰ˆ 1.5-1.6 [O II]-EMITTING GALAXIES SELECTED FROM NARROWBAND EMISSION-LINE SURVEYS. Astrophysical Journal, 2012, 757, 63.	4.5	24
41	ENHANCED STAR FORMATION OF LESS MASSIVE GALAXIES IN A PROTOCLUSTER AT zÂ=Â2.5. Astrophysical Journal Letters, 2016, 826, L28.	8.3	24
42	EVIDENCE FOR A GAS-RICH MAJOR MERGER IN A PROTO-CLUSTER AT <i>z</i> = 2.5. Astrophysical Journal Letters, 2014, 788, L23.	8.3	22
43	Mapping the large-scale structure around a zÂ=Â1.46 galaxy cluster in 3D using two adjacent narrow-band filters. Monthly Notices of the Royal Astronomical Society, 2014, 439, 2571-2583.	4.4	22
44	A Universal Correlation between Star Formation Activity and Molecular Gas Properties Across Environments. Astrophysical Journal, 2017, 847, 137.	4.5	20
45	Lyman-break Galaxies at zÂâˆ¼Â3 in the Subaru Deep Field: Luminosity Function, Clustering, and [O iii] Emission. Astrophysical Journal, 2017, 850, 5.	4.5	19
46	A 16â€‰deg2 survey of emission-line galaxies at <i>z</i>Â<Â1.5 in HSC-SSP Public Data ReleaseÂ1. Publication of the Astronomical Society of Japan, 2018, 70, .	2.5	17
47	GALAXY FORMATION AT<i>z</i>> 3 REVEALED BY NARROWBAND-SELECTED [O III] EMISSION LINE GALAXIES. Astrophysical Journal, 2015, 806, 208.	4.5	16
48	The Interstellar Medium in [O iii]-selected Star-forming Galaxies at zÂâˆ¼Â3.2. Astrophysical Journal, 2017, 849, 39.	4.5	16
49	Obscured Star Formation in the Host Galaxies of Superluminous Supernovae. Astrophysical Journal, 2018, 857, 72.	4.5	16
50	EMPRESS. II. Highly Fe-enriched Metal-poor Galaxies with âˆ¼1.0 (Fe/O)_{âŠ™} and 0.02 (O/H)_{âŠ™}: Possible Traces of Supermassive (>300 M _{âŠ™}) Stars in Early Galaxies* â€ â€¡. Astrophysical Journal, 2021, 913, 22.	4.5	16
51	Broadband Selection, Spectroscopic Identification, and Physical Properties of a Population of Extreme Emission-line Galaxies at 3 < z < 3.7*. Astrophysical Journal, 2020, 904, 180.	4.5	16
52	A 16Âdeg2 survey of emission-line galaxies at <i>z</i>Â<Â1.6 from HSC-SSP PDR2 and CHORUS. Publication of the Astronomical Society of Japan, 2020, 72, .	2.5	14
53	CHORUS. I. Cosmic HydrOgen Reionization Unveiled with Subaru: Overview. Publication of the Astronomical Society of Japan, 2020, 72, .	2.5	14
54	Dust, Gas, and Metal Content in Star-forming Galaxies at z âˆ¼ 3.3 Revealed with ALMA and Near-IR Spectroscopy. Astrophysical Journal, 2021, 908, 15.	4.5	13

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55	ALMA Observations of Molecular Gas in the Host Galaxy of AT2018cow. Astrophysical Journal Letters, 2019, 879, L13.	8.3	12
56	Do Galaxy Morphologies Really Affect the Efficiency of Star Formation During the Phase of Galaxy Transition?. Astrophysical Journal, 2019, 874, 142.	4.5	12
57	Spin parity of spiral galaxies II: a catalogue of 80â€‰k spiral galaxies using big data from the Subaru Hyper Suprime-Cam survey and deep learning. Monthly Notices of the Royal Astronomical Society, 2020, 496, 4276-4286.	4.4	12
58	Spitzer Space Telescope Constraint on the Stellar Mass of a <i>z</i> = 6.96 LyÎ± Emitter. Publication of the Astronomical Society of Japan, 2010, 62, 1167-1175.	2.5	9
59	Extended star-forming regions within galaxies in a dense proto-cluster core at <i>z</i> = 2.53. Publication of the Astronomical Society of Japan, 2019, 71, .	2.5	9
60	The whole picture of the large-scale structure of the CL1604 supercluster at <i>z</i> â^¼ 0.9. Publication of the Astronomical Society of Japan, 2019, 71, .	2.5	8
61	Subaru Hyper Suprime-Cam excavates colossal over- and underdense structures over 360â€‰deg2 out to <i>z</i> = 1. Monthly Notices of the Royal Astronomical Society, 2021, 503, 3896-3912.	4.4	8
62	Angular clustering and host halo properties of [Oâ€‰<scp>ii</scp>] emitters at <i>z</i> > 1 in the Subaru HSC survey. Publication of the Astronomical Society of Japan, 2021, 73, 1186-1207.	2.5	8
63	The Environmental Dependence of Gas Properties in Dense Cores of a Protocluster at z â^¼ 2.5 Revealed with ALMA. Astrophysical Journal, 2022, 924, 74.	4.5	8
64	Variability of Late-time Radio Emission in the Superluminous Supernova PTF10hgi. Astrophysical Journal Letters, 2021, 911, L1.	8.3	7
65	High-resolution ALMA Study of CO J = 2â€"1 Line and Dust Continuum Emissions in Cluster Galaxies at z = 1.46. Astrophysical Journal, 2022, 933, 11.	4.5	7
66	A Spectroscopic Study of a Rich Cluster at zÂ=Â1.52 with Subaru and LBT: The Environmental Impacts on the Massâ€"Metallicity Relation. Astrophysical Journal, 2019, 877, 118.	4.5	6
67	Spatially resolved molecular gas properties of host galaxy of Type I superluminous supernova SNÂ2017egm. Publication of the Astronomical Society of Japan, 2020, 72, .	2.5	4
68	Development status of the simultaneous two-color near-infrared multi-object spectrograph SWIMS for the TAO 6.5m telescope. , 2018, , .		4
69	Quantifying the Effect of Field Variance on the HÎ± Luminosity Function with the New Numerical Galaxy Catalog (Î½²GC). Astrophysical Journal, 2020, 895, 9.	4.5	3
70	Mahalo-Subaru: Mapping Star Formation at the Peak Epoch of Massive Galaxy Formation. Proceedings of the International Astronomical Union, 2012, 8, 74-77.	0.0	2
71	What Determines the H i Gas Content in Galaxies? Morphological Dependence of the H i Gas Fraction across the M _*â€"SFR Plane. Astrophysical Journal, 2021, 918, 68.	4.5	2
72	Environmental Impact on Star-forming Galaxies in a zÂâ^¼Â0.9 Cluster during the Course of Galaxy Accretion. Astrophysical Journal, 2020, 899, 64.	4.5	2

#	ARTICLE	IF	CITATIONS
73	HÎ± emission in the outskirts of galaxies at <i>z</i> = 0.4. Publication of the Astronomical Society of Japan, 2022, 74, 318-325.	2.5	0