Masao Hayashi

List of Publications by Year
in descending order

73 papers	3,203 citations	136950 32 h-index	149698 56 g-index
74 all docs	74 docs citations	74 times ranked	3153 citing authors

#	Article	IF	Citations
1	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
2	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
3	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
4	Dust, Gas, and Metal Content in Star-forming Galaxies at z â^¼ 3.3 Revealed with ALMA and Near-IR Spectroscopy. Astrophysical Journal, 2021, 908, 15.	4.5	13
5	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
6	Variability of Late-time Radio Emission in the Superluminous Supernova PTF10hgi. Astrophysical Journal Letters, 2021, 911, L1.	8.3	7
7	EMPRESS. II. Highly Fe-enriched Metal-poor Galaxies with â^¼1.0 (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
8	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
9	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
10	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
11	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
12	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
13	CHORUS. I. Cosmic HydrOgen Reionization Unveiled with Subaru: Overview. Publication of the Astronomical Society of Japan, 2020, 72, .	2.5	14
14	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
15	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
16	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
17	Structural Evolution in Massive Galaxies at z â^¼ 2. Astrophysical Journal, 2020, 901, 74.	4.5	52
18	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

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19	ALMA Observations of Molecular Gas in the Host Galaxy of AT2018cow. Astrophysical Journal Letters, 2019, 879, L13.	8.3	12
20	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
21	The whole picture of the large-scale structure of the CL1604 supercluster at <i>z</i> âˆ¼ 0.9. Publication of the Astronomical Society of Japan, 2019, 71, .	2.5	8
22	The Fraction of Active Galactic Nuclei in the USS 1558â€"003 Protocluster at zÂ=Â2.53. Astrophysical Journal, 2019, 874, 54.	4.5	28
23	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
24	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
25	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
26	Do Galaxy Morphologies Really Affect the Efficiency of Star Formation During the Phase of Galaxy Transition?. Astrophysical Journal, 2019, 874, 142.	4.5	12
27	The Hyper Suprime-Cam SSP Survey: Overview and survey design. Publication of the Astronomical Society of Japan, 2018, 70, .	2.5	566
28	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
29	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
30	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
31	Obscured Star Formation in the Host Galaxies of Superluminous Supernovae. Astrophysical Journal, 2018, 857, 72.	4.5	16
32	Molecular Gas Reservoirs in Cluster Galaxies at zÂ=Â1.46. Astrophysical Journal, 2018, 856, 118.	4.5	60
33	First data release of the Hyper Suprime-Cam Subaru Strategic Program. Publication of the Astronomical Society of Japan, 2018, 70, .	2.5	327
34	Development status of the simultaneous two-color near-infrared multi-object spectrograph SWIMS for the TAO 6.5m telescope. , 2018, , .		4
35	Evolutionary Phases of Gas-rich Galaxies in a Galaxy Cluster at zÂ=Â1.46. Astrophysical Journal Letters, 2017, 841, L21.	8.3	38
36	Rotating Starburst Cores in Massive Galaxies at zÂ=Â2.5. Astrophysical Journal Letters, 2017, 841, L25.	8.3	67

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37	BULGE-FORMING GALAXIES WITH AN EXTENDED ROTATING DISK AT zÂâˆ¼Â2. Astrophysical Journal, 2017, 834, 135.	4.5	99
38	A Universal Correlation between Star Formation Activity and Molecular Gas Properties Across Environments. Astrophysical Journal, 2017, 847, 137.	4.5	20
39	The Interstellar Medium in [O iii]-selected Star-forming Galaxies at zÂâˆ¼Â3.2. Astrophysical Journal, 2017, 849, 39.	4.5	16
40	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
41	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
42	ENHANCED STAR FORMATION OF LESS MASSIVE GALAXIES IN A PROTOCLUSTER AT zÂ=Â2.5. Astrophysical Journal Letters, 2016, 826, L28.	8.3	24
43	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
44	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
45	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
46	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
47	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
48	GALAXY FORMATION AT<i>z</i>> 3 REVEALED BY NARROWBAND-SELECTED [O III] EMISSION LINE GALAXIES. Astrophysical Journal, 2015, 806, 208.	4.5	16
49	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
50	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
51	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
52	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
53	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
54	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

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55	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
56	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
57	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
58	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
59	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
60	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
61	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
62	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
63	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
64	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
65	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
66	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
67	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
68	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
69	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
70	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
71	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
72	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

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73	Luminosityâ€Dependent Clustering of Starâ€formingBzKGalaxies at Redshift 2. Astrophysical Journal, 2007, 660, 72-80.	4.5	48