Na Hirata

List of Publications by Year
in descending order

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		57758	56724
133	7,401	44	83
papers	citations	h-index	g-index

138	138	138	2975
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The Rubble-Pile Asteroid Itokawa as Observed by Hayabusa. Science, 2006, 312, 1330-1334.	12.6	761
2	Hayabusa2 arrives at the carbonaceous asteroid 162173 Ryuguâ€”A spinning topâ€“shaped rubble pile. Science, 2019, 364, 268-272.	12.6	410
3	The geomorphology, color, and thermal properties of Ryugu: Implications for parent-body processes. Science, 2019, 364, 252.	12.6	313
4	Regolith Migration and Sorting on Asteroid Itokawa. Science, 2007, 316, 1011-1014.	12.6	271
5	The global distribution of pure anorthosite on the Moon. Nature, 2009, 461, 236-240.	27.8	265
6	The surface composition of asteroid 162173 Ryugu from Hayabusa2 near-infrared spectroscopy. Science, 2019, 364, 272-275.	12.6	262
7	Detailed Images of Asteroid 25143 Itokawa from Hayabusa. Science, 2006, 312, 1341-1344.	12.6	234
8	Mass and Local Topography Measurements of Itokawa by Hayabusa. Science, 2006, 312, 1344-1347.	12.6	213
9	Characterizing and navigating small bodies with imaging data. Meteoritics and Planetary Science, 2008, 43, 1049-1061.	1.6	209
10	Possible mantle origin of olivine around lunar impact basins detected by SELENE. Nature Geoscience, 2010, 3, 533-536.	12.9	184
11	An artificial impact on the asteroid (162173) Ryugu formed a crater in the gravity-dominated regime. Science, 2020, 368, 67-71.	12.6	183
12	Shape of (101955) Bennu indicative of a rubble pile with internal stiffness. Nature Geoscience, 2019, 12, 247-252.	12.9	179
13	Sample collection from asteroid (162173) Ryugu by Hayabusa2: Implications for surface evolution. Science, 2020, 368, 654-659.	12.6	158
14	Preliminary analysis of the Hayabusa2 samples returned from C-type asteroid Ryugu. Nature Astronomy, 2022, 6, 214-220.	10.1	136
15	Long-Lived Volcanism on the Lunar Farside Revealed by SELENE Terrain Camera. Science, 2009, 323, 905-908.	12.6	133
16	Timing and characteristics of the latest mare eruption on the Moon. Earth and Planetary Science Letters, 2011, 302, 255-266.	4.4	133
17	Size-frequency statistics of boulders on global surface of asteroid 25143 Itokawa. Earth, Planets and Space, 2008, 60, 13-20.	2.5	121
18	Boulder size and shape distributions on asteroid Ryugu. Icarus, 2019, 331, 179-191.	2.5	107

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19	Pole and Global Shape of 25143 Itokawa. Science, 2006, 312, 1347-1349.	12.6	104
20	Massive layer of pure anorthosite on the Moon. Geophysical Research Letters, 2012, 39, .	4.0	102
21	Highly porous nature of a primitive asteroid revealed by thermal imaging. Nature, 2020, 579, 518-522.	27.8	100
22	Samples returned from the asteroid Ryugu are similar to Ivuna-type carbonaceous meteorites. Science, 2023, 379, .	12.6	97
23	AKATSUKI returns to Venus. Earth, Planets and Space, 2016, 68, .	2.5	89
24	Discoveries on the lithology of lunar crater central peaks by SELENE Spectral Profiler. Geophysical Research Letters, 2008, 35, .	4.0	87
25	Lunar photometric properties at wavelengths 0.5â€“1.6 Î¼m acquired by SELENE Spectral Profiler and their dependency on local albedo and latitudinal zones. Icarus, 2011, 215, 639-660.	2.5	86
26	Small-scale topography of 25143 Itokawa from the Hayabusa laser altimeter. Icarus, 2008, 198, 108-124.	2.5	79
27	Pebbles and sand on asteroid (162173) Ryugu: In situ observation and particles returned to Earth. Science, 2022, 375, 1011-1016.	12.6	78
28	On the origin and evolution of the asteroid Ryugu: A comprehensive geochemical perspective. Proceedings of the Japan Academy Series B: Physical and Biological Sciences, 2022, 98, 227-282.	3.8	77
29	A survey of possible impact structures on 25143 Itokawa. Icarus, 2009, 200, 486-502.	2.5	75
30	Itokawa's cratering record as observed by Hayabusa: Implications for its age and collisional history. Icarus, 2009, 200, 503-513.	2.5	74
31	Overview of Venus orbiter, Akatsuki. Earth, Planets and Space, 2011, 63, 443-457.	2.5	72
32	First compositional analysis of Ryugu samples by the MicrOmega hyperspectral microscope. Nature Astronomy, 2022, 6, 221-225.	10.1	65
33	Development of the Laser Altimeter (LIDAR) for Hayabusa2. Space Science Reviews, 2017, 208, 33-47.	8.1	64
34	Ultramafic impact melt sheet beneath the South Poleâ€“Aitken basin on the Moon. Geophysical Research Letters, 2009, 36, .	4.0	61
35	NIRS3: The Near Infrared Spectrometer on Hayabusa2. Space Science Reviews, 2017, 208, 317-337.	8.1	60
36	Initial performance of the radio occultation experiment in the Venus orbiter mission Akatsuki. Earth, Planets and Space, 2017, 69, .	2.5	60

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37	Olivine-rich exposures in the South Pole-Aitken Basin. Icarus, 2012, 218, 331-344.	2.5	57
38	The shape distribution of boulders on Asteroid 25143 Itokawa: Comparison with fragments from impact experiments. Icarus, 2010, 207, 277-284.	2.5	52
39	Mare volcanism in the lunar farside Moscoviense region: Implication for lateral variation in magma production of the Moon. Geophysical Research Letters, 2009, 36, .	4.0	51
40	Martian moons exploration MMX: sample return mission to Phobos elucidating formation processes of habitable planets. Earth, Planets and Space, 2022, 74, .	2.5	51
41	Formation age of the lunar crater Giordano Bruno. Meteoritics and Planetary Science, 2009, 44, 1115-1120.	1.6	49
42	Thermophysical properties of the surface of asteroid 162173 Ryugu: Infrared observations and thermal inertia mapping. Icarus, 2020, 348, 113835.	2.5	48
43	Thermally altered subsurface material of asteroid (162173) Ryugu. Nature Astronomy, 2021, 5, 246-250.	10.1	47
44	Compositional evidence for an impact origin of the Moonâ€™s Procellarum basin. Nature Geoscience, 2012, 5, 775-778.	12.9	45
45	Scientific Objectives of Small Carry-on Impactor (SCI) and Deployable Camera 3 Digital (DCAM3-D): Observation of an Ejecta Curtain and a Crater Formed on the Surface of Ryugu by an Artificial High-Velocity Impact. Space Science Reviews, 2017, 208, 187-212.	8.1	44
46	The Actual Dynamical Environment About Itokawa. , 2006, , .		43
47	Global mapping of the degree of space weathering on asteroid 25143 Itokawa by Hayabusa/AMICA observations. Meteoritics and Planetary Science, 2007, 42, 1791-1800.	1.6	43
48	Collisional history of Ryuguâ€™s parent body from bright surface boulders. Nature Astronomy, 2021, 5, 39-45.	10.1	42
49	The Hayabusa Spacecraft Asteroid Multi-band Imaging Camera (AMICA). Icarus, 2010, 207, 714-731.	2.5	38
50	Cratering experiments on the self armoring of coarse-grained granular targets. Icarus, 2012, 220, 1040-1049.	2.5	38
51	A new type of pyroclastic deposit on the Moon containing Feâ€spinel and chromite. Geophysical Research Letters, 2013, 40, 4549-4554.	4.0	38
52	Landmark Navigation Studies and Target Characterization in the Hayabusa Encounter with Itokawa. , 2006, , .		37
53	Global photometric properties of (162173) Ryugu. Astronomy and Astrophysics, 2020, 639, A83.	5.1	37
54	Impact process of boulders on the surface of asteroid 25143 Itokawaâ€”fragments from collisional disruption. Earth, Planets and Space, 2008, 60, 7-12.	2.5	36

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55	Planned radiometrically calibrated and geometrically corrected products of lunar high-resolution Terrain Camera on SELENE. Advances in Space Research, 2008, 42, 310-316.	2.6	34
56	Ultraviolet imager on Venus orbiter Akatsuki and its initial results. Earth, Planets and Space, 2018, 70, 23.	2.5	34
57	Venus looks different from day to night across wavelengths: morphology from Akatsuki multispectral images. Earth, Planets and Space, 2018, 70, 24.	2.5	31
58	The Western Bulge of 162173 Ryugu Formed as a Result of a Rotationally Driven Deformation Process. Astrophysical Journal Letters, 2019, 874, L10.	8.3	30
59	Anomalously porous boulders on (162173) Ryugu as primordial materials from its parent body. Nature Astronomy, 2021, 5, 766-774.	10.1	30
60	Performance of Akatsuki/IR2 in Venus orbit: the first year. Earth, Planets and Space, 2017, 69, .	2.5	28
61	Characterization of Multiband Imager Aboard SELENE. Space Science Reviews, 2010, 154, 79-102.	8.1	27
62	Timing and duration of mare volcanism in the central region of the northern farside of the Moon. Earth, Planets and Space, 2011, 63, 5-13.	2.5	25
63	The spatial distribution of impact craters on Ryugu. Icarus, 2020, 338, 113527.	2.5	25
64	Resurfacing processes on asteroid (162173) Ryugu caused by an artificial impact of Hayabusa2's Small Carry-on Impactor. Icarus, 2021, 366, 114530.	2.5	24
65	Secondary craters of Tycho: Size-frequency distributions and estimated fragment sizeâ€“velocity relationships. Journal of Geophysical Research, 2006, 111, .	3.3	23
66	Spectrally blue hydrated parent body of asteroid (162173) Ryugu. Nature Communications, 2021, 12, 5837.	12.8	23
67	Simulation experiments for shocked primitive materials in the Solar System. Physics of the Earth and Planetary Interiors, 2009, 174, 227-241.	1.9	22
68	Surface morphological features of boulders on Asteroid 25143 Itokawa. Icarus, 2010, 206, 319-326.	2.5	22
69	Young mare volcanism in the Orientale region contemporary with the Procellarum KREEP Terrane (PKT) volcanism peak period â^¼2 billion years ago. Geophysical Research Letters, 2012, 39, .	4.0	22
70	Science operation plan of Phobos and Deimos from the MMX spacecraft. Earth, Planets and Space, 2021, 73, .	2.5	22
71	Absolute calibration of brightness temperature of the Venus disk observed by the Longwave Infrared Camera onboard Akatsuki. Earth, Planets and Space, 2017, 69, .	2.5	21
72	Overview of Akatsuki data products: definition of data levels, method and accuracy of geometric correction. Earth, Planets and Space, 2017, 69, .	2.5	20

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73	An overview of the LIDAR observations of asteroid 25143 Itokawa. Advances in Space Research, 2007, 40, 187-192.	2.6	18
74	The widespread occurrence of high-calcium pyroxene in bright-ray craters on the Moon and implications for lunar-crust composition. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	18
75	Initial products of Akatsuki 1-Î¼m camera. Earth, Planets and Space, 2018, 70, .	2.5	17
76	Hayabusa2 Landing Site Selection: Surface Topography of Ryugu and Touchdown Safety. Space Science Reviews, 2020, 216, 1.	8.1	17
77	Improving Hayabusa2 trajectory by combining LIDAR data and a shape model. Icarus, 2020, 338, 113574.	2.5	16
78	Vis-NIR disk-integrated photometry of asteroid 25143 Itokawa around opposition by AMICA/Hayabusa. Icarus, 2018, 311, 175-196.	2.5	15
79	Multivariable statistical analysis of spectrophotometry and spectra of (162173) Ryugu as observed by JAXA Hayabusa2 mission. Astronomy and Astrophysics, 2019, 629, A13.	5.1	15
80	Rotational states and shapes of Ryugu and Bennu: Implications for interior structure and strength. Planetary and Space Science, 2021, 204, 105268.	1.7	15
81	Surface environment of Phobos and Phobos simulant UTPS. Earth, Planets and Space, 2021, 73, .	2.5	15
82	Global occurrence trend of high-Ca pyroxene on lunar highlands and its implications. Journal of Geophysical Research E: Planets, 2015, 120, 831-848.	3.6	13
83	Featureless spectra on the Moon as evidence of residual lunar primordial crust. Journal of Geophysical Research E: Planets, 2015, 120, 2190-2205.	3.6	13
84	Albedo Observation by Hayabusa2 LIDAR: Instrument Performance and Error Evaluation. Space Science Reviews, 2017, 208, 49-64.	8.1	13
85	Ballistic deployment of the Hayabusa2 artificial landmarks in the microgravity environment of Ryugu. Icarus, 2021, 358, 114220.	2.5	13
86	Fundamentally distinct outcomes of asteroid collisional evolution: Itokawa and Eros. Geophysical Research Letters, 2007, 34, .	4.0	12
87	Differential impact cratering of Saturn's satellites by heliocentric impactors. Journal of Geophysical Research E: Planets, 2016, 121, 111-117.	3.6	12
88	Crater depth-to-diameter ratios on asteroid 162173 Ryugu. Icarus, 2021, 354, 114016.	2.5	12
89	Size of particles ejected from an artificial impact crater on asteroid 162173 Ryugu. Astronomy and Astrophysics, 2021, 647, A43.	5.1	12
90	Collisional disruption of weakly sintered porous targets at low-impact velocities. Earth, Planets and Space, 2007, 59, 319-324.	2.5	11

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91	Variation of the lunar highland surface roughness at baseline 0.15â€“100â€‰km and the relationship to relative age. Geophysical Research Letters, 2014, 41, 1444-1451.	4.0	11
92	Dynamic precise orbit determination of Hayabusa2 using laser altimeter (LIDAR) and image tracking data sets. Earth, Planets and Space, 2020, 72, .	2.5	11
93	MMX geodesy investigations: science requirements and observation strategy. Earth, Planets and Space, 2021, 73, .	2.5	11
94	Scientific exploration of lunar surface using a rover in Japanese future lunar mission. Advances in Space Research, 2002, 30, 1921-1926.	2.6	10
95	An Automated Method for Crater Counting Using Rotational Pixel Swapping Method. IEEE Transactions on Geoscience and Remote Sensing, 2017, 55, 4384-4397.	6.3	10
96	A generalised methodology for analytic construction of 1:1 resonances around irregular bodies: Application to the asteroid Ryuguâ€™s ejecta dynamics. Planetary and Space Science, 2020, 180, 104740.	1.7	10
97	Geologic History and Crater Morphology of Asteroid (162173) Ryugu. Journal of Geophysical Research E: Planets, 2021, 126, e2020JE006572.	3.6	10
98	Estimation of the lunar reflectance by ground-based observation using a tunable liquid-crystal filter telescope. Earth, Planets and Space, 2008, 60, 417-424.	2.5	9
99	Characterization of the Ryugu surface by means of the variability of the near-infrared spectral slope in NIRS3 data. Icarus, 2020, 351, 113959.	2.5	9
100	Hayabusa2 pinpoint touchdown near the artificial crater on Ryugu: Trajectory design and guidance performance. Advances in Space Research, 2021, 68, 3093-3140.	2.6	9
101	Initiation of a lightning search using the lightning and airglow camera onboard the Venus orbiter Akatsuki. Earth, Planets and Space, 2018, 70, 88.	2.5	8
102	Global classification of lunar reflectance spectra obtained by Kaguya (SELENE): Implication for hidden basaltic materials. Icarus, 2019, 321, 407-425.	2.5	8
103	Rayed craters on Dione: Implication for the dominant surface alteration process. Icarus, 2016, 274, 116-121.	2.5	7
104	Collisional disruption of porous sintered glass beads at low impact velocities. Advances in Space Research, 2007, 40, 252-257.	2.6	6
105	Rotational Pixel Swapping Method for Detection of Circular Features in Binary Images. IEEE Transactions on Geoscience and Remote Sensing, 2015, 53, 710-723.	6.3	5
106	Rotational effect as the possible cause of the east-west asymmetric crater rims on Ryugu observed by LIDAR data. Icarus, 2021, 354, 114073.	2.5	5
107	Ejecta distribution from impact craters on Ryugu: Possible origin of the bluer units. Icarus, 2021, 364, 114474.	2.5	5
108	Ejecta emplacement as the possible origin of Ryugu's equatorial ridge. Icarus, 2021, 367, 114590.	2.5	5

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109	YORP Effect on Asteroid 162173 Ryugu: Implications for the Dynamical History. Journal of Geophysical Research E: Planets, 2021, 126, e2021JE006863.	3.6	4
110	Site selection for the Hayabusa2 artificial cratering and subsurface material sampling on Ryugu. Planetary and Space Science, 2022, 219, 105519.	1.7	4
111	Timing of the faulting on the Wispy Terrain of Dione based on stratigraphic relationships with impact craters. Journal of Geophysical Research E: Planets, 2016, 121, 2325-2334.	3.6	3
112	Alignment determination of the Hayabusa2 laser altimeter (LIDAR). Earth, Planets and Space, 2021, 73, .	2.5	3
113	Extraction of craters as concentric circle patterns of contours on the lunar digital terrain model. , 2011, , .		2
114	Ray craters on Ganymede: Implications for cratering apex-antapex asymmetry and surface modification processes. Icarus, 2017, 295, 140-148.	2.5	2
115	NIRS3: The Near Infrared Spectrometer on Hayabusa2. , 2017, , 317-337.		2
116	Construction of Lunar Nomenclature Search System. Transactions of the Japan Society for Aeronautical and Space Sciences Space Technology Japan, 2009, 7, Tk_43-Tk_47.	0.2	2
117	COMPUTATIONAL GEOLOGY FOR LUNAR DATA ANALYSIS FROM LISM ON KAGUYA. , 0, , 77-88.		1
118	Geometric correction for thermographic images of asteroid 162173 Ryugu by TIR (thermal infrared) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	2.5	1
119	Development of the Laser Altimeter (LIDAR) for Hayabusa2. , 2016, , 33-47.		1
120	Exploring Structural and Dimensional Similarities Withinâ€"Lunar Nomenclature System Using Query Interfaces. , 2007, , 48-53.		1
121	Three-axial shape distributions of pebbles, cobbles and boulders smaller than a few meters on asteroid Ryugu. Icarus, 2022, 381, 115007.	2.5	1
122	NIRS3 spectral analysis of the artificial Omusubi-Kororin crater on Ryugu. Monthly Notices of the Royal Astronomical Society, 2022, 514, 6173-6182.	4.4	1
123	Online conference system for collaborative work to make thematic maps. , 2008, , .		0
124	Automatic tracking of impact fragments. World Review of Science, Technology and Sustainable Development, 2010, 7, 181.	0.4	0
125	Development of online discussion system: Combination of Google Earth and Twitter. , 2012, , .		0
126	HARMONICS: A Visualization Tool for Hayabusa and Hayabusa 2 Missions. Transactions of the Japan Society for Aeronautical and Space Sciences, 2017, 60, 132-136.	0.7	0

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127	Spatial Distribution of Ray Craters on Callisto: Implications for Ray Retention and Impactor Sources on Jovian Satellites. Journal of Geophysical Research E: Planets, 2019, 124, 1717-1727.	3.6	0
128	WISE-CAPS: Web-Based Interactive Secure Environment for Collaborative Analysis of Planetary Science. Lecture Notes in Computer Science, 2010, , 58-68.	1.3	0
129	Image Search System for Data Sets of Small Body Exploration with a 3D Polygon Shape Model. Transactions of the Japan Society for Aeronautical and Space Sciences Aerospace Technology Japan, 2012, 10, Tk_7-Tk_14.	0.2	0
130	WISE-CAPS: Overcoming Information Gathering Challenges in Lunar Surface Exploration. Lecture Notes in Computer Science, 2014, , 266-273.	1.3	0
131	Scientific Objectives of Small Carry-on Impactor (SCI) and Deployable Camera 3 Digital (DCAM3-D): Observation of an Ejecta Curtain and a Crater Formed on the Surface of Ryugu by an Artificial High-Velocity Impact. , 2016, , 187-212.		0
132	Albedo Observation by Hayabusa2 LIDAR: Instrument Performance and Error Evaluation. , 2016, , 49-64.		0
133	Acceleration of Gravitation Field Analysis for Asteroids by GPU Computation. , 2021, , .		0