

# Na Hirata

## List of Publications by Year in descending order

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Version: 2024-02-01

133  
papers

7,401  
citations

57631

44  
h-index

56606

83  
g-index

138  
all docs

138  
docs citations

138  
times ranked

2975  
citing authors

#	ARTICLE	IF	CITATIONS
1	Samples returned from the asteroid Ryugu are similar to Ivuna-type carbonaceous meteorites. <i>Science</i> , 2023, 379, .	6.0	97
2	Martian moons exploration MMX: sample return mission to Phobos elucidating formation processes of habitable planets. <i>Earth, Planets and Space</i> , 2022, 74, .	0.9	51
3	Pebbles and sand on asteroid (162173) Ryugu: In situ observation and particles returned to Earth. <i>Science</i> , 2022, 375, 1011-1016.	6.0	78
4	Three-axial shape distributions of pebbles, cobbles and boulders smaller than a few meters on asteroid Ryugu. <i>Icarus</i> , 2022, 381, 115007.	1.1	1
5	Preliminary analysis of the Hayabusa2 samples returned from C-type asteroid Ryugu. <i>Nature Astronomy</i> , 2022, 6, 214-220.	4.2	136
6	First compositional analysis of Ryugu samples by the MicrOmega hyperspectral microscope. <i>Nature Astronomy</i> , 2022, 6, 221-225.	4.2	65
7	On the origin and evolution of the asteroid Ryugu: A comprehensive geochemical perspective. <i>Proceedings of the Japan Academy Series B: Physical and Biological Sciences</i> , 2022, 98, 227-282.	1.6	77
8	Site selection for the Hayabusa2 artificial cratering and subsurface material sampling on Ryugu. <i>Planetary and Space Science</i> , 2022, 219, 105519.	0.9	4
9	NIRS3 spectral analysis of the artificial Omusubi-Kororin crater on Ryugu. <i>Monthly Notices of the Royal Astronomical Society</i> , 2022, 514, 6173-6182.	1.6	1
10	Crater depth-to-diameter ratios on asteroid 162173 Ryugu. <i>Icarus</i> , 2021, 354, 114016.	1.1	12
11	Rotational effect as the possible cause of the east-west asymmetric crater rims on Ryugu observed by LIDAR data. <i>Icarus</i> , 2021, 354, 114073.	1.1	5
12	Ballistic deployment of the Hayabusa2 artificial landmarks in the microgravity environment of Ryugu. <i>Icarus</i> , 2021, 358, 114220.	1.1	13
13	Collisional history of Ryugu's parent body from bright surface boulders. <i>Nature Astronomy</i> , 2021, 5, 39-45.	4.2	42
14	Thermally altered subsurface material of asteroid (162173) Ryugu. <i>Nature Astronomy</i> , 2021, 5, 246-250.	4.2	47
15	Alignment determination of the Hayabusa2 laser altimeter (LIDAR). <i>Earth, Planets and Space</i> , 2021, 73, .	0.9	3
16	Size of particles ejected from an artificial impact crater on asteroid 162173 Ryugu. <i>Astronomy and Astrophysics</i> , 2021, 647, A43.	2.1	12
17	Anomalously porous boulders on (162173) Ryugu as primordial materials from its parent body. <i>Nature Astronomy</i> , 2021, 5, 766-774.	4.2	30
18	Geometric correction for thermographic images of asteroid 162173 Ryugu by TIR (thermal infrared) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	0.9	1

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19	Geologic History and Crater Morphology of Asteroid (162173) Ryugu. Journal of Geophysical Research E: Planets, 2021, 126, e2020JE006572.	1.5	10
20	Ejecta distribution from impact craters on Ryugu: Possible origin of the bluer units. Icarus, 2021, 364, 114474.	1.1	5
21	Rotational states and shapes of Ryugu and Bennu: Implications for interior structure and strength. Planetary and Space Science, 2021, 204, 105268.	0.9	15
22	Resurfacing processes on asteroid (162173) Ryugu caused by an artificial impact of Hayabusa2's Small Carry-on Impactor. Icarus, 2021, 366, 114530.	1.1	24
23	Ejecta emplacement as the possible origin of Ryugu's equatorial ridge. Icarus, 2021, 367, 114590.	1.1	5
24	Hayabusa2 pinpoint touchdown near the artificial crater on Ryugu: Trajectory design and guidance performance. Advances in Space Research, 2021, 68, 3093-3140.	1.2	9
25	Spectrally blue hydrated parent body of asteroid (162173) Ryugu. Nature Communications, 2021, 12, 5837.	5.8	23
26	YORP Effect on Asteroid 162173 Ryugu: Implications for the Dynamical History. Journal of Geophysical Research E: Planets, 2021, 126, e2021JE006863.	1.5	4
27	Surface environment of Phobos and Phobos simulant UTPS. Earth, Planets and Space, 2021, 73, .	0.9	15
28	MMX geodesy investigations: science requirements and observation strategy. Earth, Planets and Space, 2021, 73, .	0.9	11
29	Science operation plan of Phobos and Deimos from the MMX spacecraft. Earth, Planets and Space, 2021, 73, .	0.9	22
30	Acceleration of Gravitation Field Analysis for Asteroids by GPU Computation. , 2021, , .		0
31	A generalised methodology for analytic construction of 1:1 resonances around irregular bodies: Application to the asteroid Ryugu's ejecta dynamics. Planetary and Space Science, 2020, 180, 104740.	0.9	10
32	The spatial distribution of impact craters on Ryugu. Icarus, 2020, 338, 113527.	1.1	25
33	Improving Hayabusa2 trajectory by combining LIDAR data and a shape model. Icarus, 2020, 338, 113574.	1.1	16
34	Hayabusa2 Landing Site Selection: Surface Topography of Ryugu and Touchdown Safety. Space Science Reviews, 2020, 216, 1.	3.7	17
35	Global photometric properties of (162173) Ryugu. Astronomy and Astrophysics, 2020, 639, A83.	2.1	37
36	Sample collection from asteroid (162173) Ryugu by Hayabusa2: Implications for surface evolution. Science, 2020, 368, 654-659.	6.0	158

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37	Thermophysical properties of the surface of asteroid 162173 Ryugu: Infrared observations and thermal inertia mapping. <i>Icarus</i> , 2020, 348, 113835.	1.1	48
38	Highly porous nature of a primitive asteroid revealed by thermal imaging. <i>Nature</i> , 2020, 579, 518-522.	13.7	100
39	An artificial impact on the asteroid (162173) Ryugu formed a crater in the gravity-dominated regime. <i>Science</i> , 2020, 368, 67-71.	6.0	183
40	Characterization of the Ryugu surface by means of the variability of the near-infrared spectral slope in NIRS3 data. <i>Icarus</i> , 2020, 351, 113959.	1.1	9
41	Dynamic precise orbit determination of Hayabusa2 using laser altimeter (LIDAR) and image tracking data sets. <i>Earth, Planets and Space</i> , 2020, 72, .	0.9	11
42	Multivariable statistical analysis of spectrophotometry and spectra of (162173) Ryugu as observed by JAXA Hayabusa2 mission. <i>Astronomy and Astrophysics</i> , 2019, 629, A13.	2.1	15
43	Spatial Distribution of Ray Craters on Callisto: Implications for Ray Retention and Impactor Sources on Jovian Satellites. <i>Journal of Geophysical Research E: Planets</i> , 2019, 124, 1717-1727.	1.5	0
44	Boulder size and shape distributions on asteroid Ryugu. <i>Icarus</i> , 2019, 331, 179-191.	1.1	107
45	Shape of (101955) Bennu indicative of a rubble pile with internal stiffness. <i>Nature Geoscience</i> , 2019, 12, 247-252.	5.4	179
46	The surface composition of asteroid 162173 Ryugu from Hayabusa2 near-infrared spectroscopy. <i>Science</i> , 2019, 364, 272-275.	6.0	262
47	Hayabusa2 arrives at the carbonaceous asteroid 162173 Ryugu—A spinning top—shaped rubble pile. <i>Science</i> , 2019, 364, 268-272.	6.0	410
48	The geomorphology, color, and thermal properties of Ryugu: Implications for parent-body processes. <i>Science</i> , 2019, 364, 252.	6.0	313
49	The Western Bulge of 162173 Ryugu Formed as a Result of a Rotationally Driven Deformation Process. <i>Astrophysical Journal Letters</i> , 2019, 874, L10.	3.0	30
50	Global classification of lunar reflectance spectra obtained by Kaguya (SELENE): Implication for hidden basaltic materials. <i>Icarus</i> , 2019, 321, 407-425.	1.1	8
51	Vis-NIR disk-integrated photometry of asteroid 25143 Itokawa around opposition by AMICA/Hayabusa. <i>Icarus</i> , 2018, 311, 175-196.	1.1	15
52	Initial products of Akatsuki 1- $\frac{1}{4}$ m camera. <i>Earth, Planets and Space</i> , 2018, 70, .	0.9	17
53	Initiation of a lightning search using the lightning and airglow camera onboard the Venus orbiter Akatsuki. <i>Earth, Planets and Space</i> , 2018, 70, 88.	0.9	8
54	Ultraviolet imager on Venus orbiter Akatsuki and its initial results. <i>Earth, Planets and Space</i> , 2018, 70, 23.	0.9	34

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55	Venus looks different from day to night across wavelengths: morphology from Akatsuki multispectral images. <i>Earth, Planets and Space</i> , 2018, 70, 24.	0.9	31
56	Development of the Laser Altimeter (LIDAR) for Hayabusa2. <i>Space Science Reviews</i> , 2017, 208, 33-47.	3.7	64
57	Albedo Observation by Hayabusa2 LIDAR: Instrument Performance and Error Evaluation. <i>Space Science Reviews</i> , 2017, 208, 49-64.	3.7	13
58	An Automated Method for Crater Counting Using Rotational Pixel Swapping Method. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2017, 55, 4384-4397.	2.7	10
59	Ray craters on Ganymede: Implications for cratering apex-antapex asymmetry and surface modification processes. <i>Icarus</i> , 2017, 295, 140-148.	1.1	2
60	NIRS3: The Near Infrared Spectrometer on Hayabusa2. <i>Space Science Reviews</i> , 2017, 208, 317-337.	3.7	60
61	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. <i>Space Science Reviews</i> , 2017, 208, 187-212.	3.7	44
62	Overview of Akatsuki data products: definition of data levels, method and accuracy of geometric correction. <i>Earth, Planets and Space</i> , 2017, 69, .	0.9	20
63	HARMONICS: A Visualization Tool for <i>Hayabusa</i> and <i>Hayabusa 2</i> Missions. <i>Transactions of the Japan Society for Aeronautical and Space Sciences</i> , 2017, 60, 132-136.	0.4	0
64	Initial performance of the radio occultation experiment in the Venus orbiter mission Akatsuki. <i>Earth, Planets and Space</i> , 2017, 69, .	0.9	60
65	Absolute calibration of brightness temperature of the Venus disk observed by the Longwave Infrared Camera onboard Akatsuki. <i>Earth, Planets and Space</i> , 2017, 69, .	0.9	21
66	Performance of Akatsuki/IR2 in Venus orbit: the first year. <i>Earth, Planets and Space</i> , 2017, 69, .	0.9	28
67	NIRS3: The Near Infrared Spectrometer on Hayabusa2. , 2017, , 317-337.		2
68	Timing of the faulting on the Wispy Terrain of Dione based on stratigraphic relationships with impact craters. <i>Journal of Geophysical Research E: Planets</i> , 2016, 121, 2325-2334.	1.5	3
69	Rayed craters on Dione: Implication for the dominant surface alteration process. <i>Icarus</i> , 2016, 274, 116-121.	1.1	7
70	Differential impact cratering of Saturn's satellites by heliocentric impactors. <i>Journal of Geophysical Research E: Planets</i> , 2016, 121, 111-117.	1.5	12
71	AKATSUKI returns to Venus. <i>Earth, Planets and Space</i> , 2016, 68, .	0.9	89
72	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

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73	Development of the Laser Altimeter (LIDAR) for Hayabusa2. , 2016, , 33-47.		1
74	Albedo Observation by Hayabusa2 LIDAR: Instrument Performance and Error Evaluation. , 2016, , 49-64.		0
75	Global occurrence trend of high-Ca pyroxene on lunar highlands and its implications. Journal of Geophysical Research E: Planets, 2015, 120, 831-848.	1.5	13
76	Featureless spectra on the Moon as evidence of residual lunar primordial crust. Journal of Geophysical Research E: Planets, 2015, 120, 2190-2205.	1.5	13
77	Rotational Pixel Swapping Method for Detection of Circular Features in Binary Images. IEEE Transactions on Geoscience and Remote Sensing, 2015, 53, 710-723.	2.7	5
78	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.	1.5	11
79	WISE-CAPS: Overcoming Information Gathering Challenges in Lunar Surface Exploration. Lecture Notes in Computer Science, 2014, , 266-273.	1.0	0
80	A new type of pyroclastic deposit on the Moon containing Feâ€“spinel and chromite. Geophysical Research Letters, 2013, 40, 4549-4554.	1.5	38
81	Young mare volcanism in the Orientale region contemporary with the Procellarum KREEP Terrane (PKT) volcanism peak period âˆ¼2 billion years ago. Geophysical Research Letters, 2012, 39, .	1.5	22
82	Development of online discussion system: Combination of Google Earth and Twitter. , 2012, , .		0
83	Cratering experiments on the self armoring of coarse-grained granular targets. Icarus, 2012, 220, 1040-1049.	1.1	38
84	Compositional evidence for an impact origin of the Moonâ€™s Procellarum basin. Nature Geoscience, 2012, 5, 775-778.	5.4	45
85	Olivine-rich exposures in the South Pole-Aitken Basin. Icarus, 2012, 218, 331-344.	1.1	57
86	Massive layer of pure anorthosite on the Moon. Geophysical Research Letters, 2012, 39, .	1.5	102
87	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.	0.1	0
88	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.	1.5	18
89	Timing and characteristics of the latest mare eruption on the Moon. Earth and Planetary Science Letters, 2011, 302, 255-266.	1.8	133
90	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.	1.1	86

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91	Extraction of craters as concentric circle patterns of contours on the lunar digital terrain model. , 2011, , .		2
92	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.	0.9	25
93	Overview of Venus orbiter, Akatsuki. Earth, Planets and Space, 2011, 63, 443-457.	0.9	72
94	Automatic tracking of impact fragments. World Review of Science, Technology and Sustainable Development, 2010, 7, 181.	0.3	0
95	The shape distribution of boulders on Asteroid 25143 Itokawa: Comparison with fragments from impact experiments. Icarus, 2010, 207, 277-284.	1.1	52
96	Characterization of Multiband Imager Aboard SELENE. Space Science Reviews, 2010, 154, 79-102.	3.7	27
97	Surface morphological features of boulders on Asteroid 25143 Itokawa. Icarus, 2010, 206, 319-326.	1.1	22
98	The Hayabusa Spacecraft Asteroid Multi-band Imaging Camera (AMICA). Icarus, 2010, 207, 714-731.	1.1	38
99	Possible mantle origin of olivine around lunar impact basins detected by SELENE. Nature Geoscience, 2010, 3, 533-536.	5.4	184
100	WISE-CAPS: Web-Based Interactive Secure Environment for Collaborative Analysis of Planetary Science. Lecture Notes in Computer Science, 2010, , 58-68.	1.0	0
101	Itokawa's cratering record as observed by Hayabusa: Implications for its age and collisional history. Icarus, 2009, 200, 503-513.	1.1	74
102	The global distribution of pure anorthosite on the Moon. Nature, 2009, 461, 236-240.	13.7	265
103	A survey of possible impact structures on 25143 Itokawa. Icarus, 2009, 200, 486-502.	1.1	75
104	Long-Lived Volcanism on the Lunar Farside Revealed by SELENE Terrain Camera. Science, 2009, 323, 905-908.	6.0	133
105	Simulation experiments for shocked primitive materials in the Solar System. Physics of the Earth and Planetary Interiors, 2009, 174, 227-241.	0.7	22
106	Mare volcanism in the lunar farside Moscoviense region: Implication for lateral variation in magma production of the Moon. Geophysical Research Letters, 2009, 36, .	1.5	51
107	Ultramafic impact melt sheet beneath the South Pole's Aitken basin on the Moon. Geophysical Research Letters, 2009, 36, .	1.5	61
108	Formation age of the lunar crater Giordano Bruno. Meteoritics and Planetary Science, 2009, 44, 1115-1120.	0.7	49

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109	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
110	Small-scale topography of 25143 Itokawa from the Hayabusa laser altimeter. Icarus, 2008, 198, 108-124.	1.1	79
111	Discoveries on the lithology of lunar crater central peaks by SELENE Spectral Profiler. Geophysical Research Letters, 2008, 35, .	1.5	87
112	Planned radiometrically calibrated and geometrically corrected products of lunar high-resolution Terrain Camera on SELENE. Advances in Space Research, 2008, 42, 310-316.	1.2	34
113	Characterizing and navigating small bodies with imaging data. Meteoritics and Planetary Science, 2008, 43, 1049-1061.	0.7	209
114	Impact process of boulders on the surface of asteroid 25143 Itokawa's fragments from collisional disruption. Earth, Planets and Space, 2008, 60, 7-12.	0.9	36
115	Size-frequency statistics of boulders on global surface of asteroid 25143 Itokawa. Earth, Planets and Space, 2008, 60, 13-20.	0.9	121
116	Estimation of the lunar reflectance by ground-based observation using a tunable liquid-crystal filter telescope. Earth, Planets and Space, 2008, 60, 417-424.	0.9	9
117	Online conference system for collaborative work to make thematic maps. , 2008, , .		0
118	Regolith Migration and Sorting on Asteroid Itokawa. Science, 2007, 316, 1011-1014.	6.0	271
119	Global mapping of the degree of space weathering on asteroid 25143 Itokawa by Hayabusa/AMICA observations. Meteoritics and Planetary Science, 2007, 42, 1791-1800.	0.7	43
120	Collisional disruption of weakly sintered porous targets at low-impact velocities. Earth, Planets and Space, 2007, 59, 319-324.	0.9	11
121	Fundamentally distinct outcomes of asteroid collisional evolution: Itokawa and Eros. Geophysical Research Letters, 2007, 34, .	1.5	12
122	An overview of the LIDAR observations of asteroid 25143 Itokawa. Advances in Space Research, 2007, 40, 187-192.	1.2	18
123	Collisional disruption of porous sintered glass beads at low impact velocities. Advances in Space Research, 2007, 40, 252-257.	1.2	6
124	Exploring Structural and Dimensional Similarities Within the Lunar Nomenclature System Using Query Interfaces. , 2007, , 48-53.		1
125	The Rubble-Pile Asteroid Itokawa as Observed by Hayabusa. Science, 2006, 312, 1330-1334.	6.0	761
126	Landmark Navigation Studies and Target Characterization in the Hayabusa Encounter with Itokawa. , 2006, , .		37

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127	The Actual Dynamical Environment About Itokawa. , 2006, , .		43
128	Secondary craters of Tycho: Size-frequency distributions and estimated fragment size“velocity relationships. Journal of Geophysical Research, 2006, 111, .	3.3	23
129	Detailed Images of Asteroid 25143 Itokawa from Hayabusa. Science, 2006, 312, 1341-1344.	6.0	234
130	Pole and Global Shape of 25143 Itokawa. Science, 2006, 312, 1347-1349.	6.0	104
131	Mass and Local Topography Measurements of Itokawa by Hayabusa. Science, 2006, 312, 1344-1347.	6.0	213
132	Scientific exploration of lunar surface using a rover in Japanese future lunar mission. Advances in Space Research, 2002, 30, 1921-1926.	1.2	10
133	COMPUTATIONAL GEOLOGY FOR LUNAR DATA ANALYSIS FROM LISM ON KAGUYA. , 0, , 77-88.		1