

Naoya Sakatani

List of Publications by Year in descending order

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Version: 2024-02-01

68
papers

3,100
citations

218677

26
h-index

161849

54
g-index

70
all docs

70
docs citations

70
times ranked

1312
citing authors

#	ARTICLE	IF	CITATIONS
1	Hayabusa2 arrives at the carbonaceous asteroid 162173 Ryugu—A spinning top—shaped rubble pile. <i>Science</i> , 2019, 364, 268-272.	12.6	410
2	The geomorphology, color, and thermal properties of Ryugu: Implications for parent-body processes. <i>Science</i> , 2019, 364, 252.	12.6	313
3	The surface composition of asteroid 162173 Ryugu from Hayabusa2 near-infrared spectroscopy. <i>Science</i> , 2019, 364, 272-275.	12.6	262
4	An artificial impact on the asteroid (162173) Ryugu formed a crater in the gravity-dominated regime. <i>Science</i> , 2020, 368, 67-71.	12.6	183
5	Sample collection from asteroid (162173) Ryugu by Hayabusa2: Implications for surface evolution. <i>Science</i> , 2020, 368, 654-659.	12.6	158
6	Preliminary analysis of the Hayabusa2 samples returned from C-type asteroid Ryugu. <i>Nature Astronomy</i> , 2022, 6, 214-220.	10.1	136
7	Low thermal conductivity boulder with high porosity identified on C-type asteroid (162173) Ryugu. <i>Nature Astronomy</i> , 2019, 3, 971-976.	10.1	124
8	Boulder size and shape distributions on asteroid Ryugu. <i>Icarus</i> , 2019, 331, 179-191.	2.5	107
9	Highly porous nature of a primitive asteroid revealed by thermal imaging. <i>Nature</i> , 2020, 579, 518-522.	27.8	100
10	Samples returned from the asteroid Ryugu are similar to Ivuna-type carbonaceous meteorites. <i>Science</i> , 2023, 379, .	12.6	97
11	Pebbles and sand on asteroid (162173) Ryugu: In situ observation and particles returned to Earth. <i>Science</i> , 2022, 375, 1011-1016.	12.6	78
12	Thermal conductivity model for powdered materials under vacuum based on experimental studies. <i>AIP Advances</i> , 2017, 7, .	1.3	75
13	Thermal Infrared Imaging Experiments of C-Type Asteroid 162173 Ryugu on Hayabusa2. <i>Space Science Reviews</i> , 2017, 208, 255-286.	8.1	64
14	Initial inflight calibration for Hayabusa2 optical navigation camera (ONC) for science observations of asteroid Ryugu. <i>Icarus</i> , 2018, 300, 341-359.	2.5	56
15	Thermal conductivity of lunar regolith simulant JSC-1A under vacuum. <i>Icarus</i> , 2018, 309, 13-24.	2.5	54
16	Updated inflight calibration of Hayabusa2's optical navigation camera (ONC) for scientific observations during the cruise phase. <i>Icarus</i> , 2019, 325, 153-195.	2.5	48
17	Thermophysical properties of the surface of asteroid 162173 Ryugu: Infrared observations and thermal inertia mapping. <i>Icarus</i> , 2020, 348, 113835.	2.5	48
18	Thermally altered subsurface material of asteroid (162173) Ryugu. <i>Nature Astronomy</i> , 2021, 5, 246-250.	10.1	47

#	ARTICLE	IF	CITATIONS
19	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.	8.1	44
20	Collisional history of Ryugu's parent body from bright surface boulders. <i>Nature Astronomy</i> , 2021, 5, 39-45.	10.1	42
21	Asteroid Ryugu before the Hayabusa2 encounter. <i>Progress in Earth and Planetary Science</i> , 2018, 5, .	3.0	39
22	Spacecraft sample collection and subsurface excavation of asteroid (101955) Bennu. <i>Science</i> , 2022, 377, 285-291.	12.6	39
23	Global photometric properties of (162173) Ryugu. <i>Astronomy and Astrophysics</i> , 2020, 639, A83.	5.1	37
24	The Western Bulge of 162173 Ryugu Formed as a Result of a Rotationally Driven Deformation Process. <i>Astrophysical Journal Letters</i> , 2019, 874, L10.	8.3	30
25	Anomalously porous boulders on (162173) Ryugu as primordial materials from its parent body. <i>Nature Astronomy</i> , 2021, 5, 766-774.	10.1	30
26	Macroporosity and Grain Density of Rubble Pile Asteroid (162173) Ryugu. <i>Journal of Geophysical Research E: Planets</i> , 2020, 125, e2020JE006519.	3.6	27
27	The spatial distribution of impact craters on Ryugu. <i>Icarus</i> , 2020, 338, 113527.	2.5	25
28	Resurfacing processes on asteroid (162173) Ryugu caused by an artificial impact of Hayabusa2's Small Carry-on Impactor. <i>Icarus</i> , 2021, 366, 114530.	2.5	24
29	Spectrally blue hydrated parent body of asteroid (162173) Ryugu. <i>Nature Communications</i> , 2021, 12, 5837.	12.8	23
30	Compressional stress effect on thermal conductivity of powdered materials: Measurements and their implication to lunar regolith. <i>Icarus</i> , 2016, 267, 1-11.	2.5	21
31	Hayabusa2 extended mission: New voyage to rendezvous with a small asteroid rotating with a short period. <i>Advances in Space Research</i> , 2021, 68, 1533-1555.	2.6	20
32	Effects of dust layers on thermal emission from airless bodies. <i>Progress in Earth and Planetary Science</i> , 2019, 6, .	3.0	19
33	The deep-space multi-object orbit determination system and its application to Hayabusa2's asteroid proximity operations. <i>Astrodynamics</i> , 2020, 4, 377-392.	2.4	19
34	Impact Experiment on Asteroid (162173) Ryugu: Structure beneath the Impact Point Revealed by In Situ Observations of the Ejecta Curtain. <i>Astrophysical Journal Letters</i> , 2020, 899, L22.	8.3	19
35	System Configuration and Operation Plan of Hayabusa2 DCAM3-D Camera System for Scientific Observation During SCI Impact Experiment. <i>Space Science Reviews</i> , 2017, 208, 125-142.	8.1	18
36	The descent and bouncing path of the Hayabusa2 lander MASCOT at asteroid (162173) Ryugu. <i>Astronomy and Astrophysics</i> , 2019, 632, L3.	5.1	18

#	ARTICLE	IF	CITATIONS
37	Performance of Hayabusa2 DCAM3-D Camera for Short-Range Imaging of SCI and Ejecta Curtain Generated from the Artificial Impact Crater Formed on Asteroid 162137 Ryugu (1999 JU 3) Tj ETQq1 1 0.784314 rgbT /Overlæk 10 T	8.1	17
38	Hayabusa2 Landing Site Selection: Surface Topography of Ryugu and Touchdown Safety. Space Science Reviews, 2020, 216, 1.	8.1	17
39	Thermal Imaging Performance of TIR Onboard the Hayabusa2 Spacecraft. Space Science Reviews, 2017, 208, 239-254.	8.1	16
40	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
41	Surface environment of Phobos and Phobos simulant UTPS. Earth, Planets and Space, 2021, 73, .	2.5	15
42	Crater depth-to-diameter ratios on asteroid 162173 Ryugu. Icarus, 2021, 354, 114016.	2.5	12
43	Size of particles ejected from an artificial impact crater on asteroid 162173 Ryugu. Astronomy and Astrophysics, 2021, 647, A43.	5.1	12
44	Opposition Observations of 162173 Ryugu: Normal Albedo Map Highlights Variations in Regolith Characteristics. Planetary Science Journal, 2021, 2, 177.	3.6	12
45	Surface roughness of asteroid (162173) Ryugu and comet 67P/Churyumovâ€™Gerasimenko inferred from<i>in situ</i> observations. Monthly Notices of the Royal Astronomical Society, 2020, 500, 3178-3193.	4.4	11
46	Post-arrival calibration of Hayabusa2's optical navigation cameras (ONCs): Severe effects from touchdown events. Icarus, 2021, 360, 114353.	2.5	11
47	Earth and moon observations by thermal infrared imager on Hayabusa2 and the application to detectability of asteroid 162173 Ryugu. Planetary and Space Science, 2018, 158, 46-52.	1.7	10
48	Geologic History and Crater Morphology of Asteroid (162173) Ryugu. Journal of Geophysical Research E: Planets, 2021, 126, e2020JE006572.	3.6	10
49	Mid-infrared emissivity of partially dehydrated asteroid (162173) Ryugu shows strong signs of aqueous alteration. Nature Communications, 2022, 13, 364.	12.8	10
50	The MASCOT landing area on asteroid (162173) Ryugu: Stereo-photogrammetric analysis using images of the ONC onboard the Hayabusa2 spacecraft. Astronomy and Astrophysics, 2019, 632, L4.	5.1	9
51	Improved method of hydrous mineral detection by latitudinal distribution of 0.7-1¼m surface reflectance absorption on the asteroid Ryugu. Icarus, 2021, 360, 114348.	2.5	9
52	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
53	Spectral characterization of the craters of Ryugu as observed by the NIRS3 instrument on-board Hayabusa2. Icarus, 2021, 357, 114253.	2.5	7
54	Fullâ€™Field Modeling of Heat Transfer in Asteroid Regolith: 2. Effects of Porosity. Journal of Geophysical Research E: Planets, 2022, 127, .	3.6	7

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55	Development of image texture analysis technique for boulder distribution measurements: Applications to asteroids Ryugu and Itokawa. Planetary and Space Science, 2021, 204, 105249.	1.7	6
56	Resurfacing processes constrained by crater distribution on Ryugu. Icarus, 2022, 377, 114911.	2.5	6
57	High-resolution observations of bright boulders on asteroid Ryugu: 2. Spectral properties. Icarus, 2021, 369, 114591.	2.5	5
58	YORP Effect on Asteroid 162173 Ryugu: Implications for the Dynamical History. Journal of Geophysical Research E: Planets, 2021, 126, e2021JE006863.	3.6	4
59	Site selection for the Hayabusa2 artificial cratering and subsurface material sampling on Ryugu. Planetary and Space Science, 2022, 219, 105519.	1.7	4
60	Alignment determination of the Hayabusa2 laser altimeter (LIDAR). Earth, Planets and Space, 2021, 73, .	2.5	3
61	High-resolution observations of bright boulders on asteroid Ryugu: 1. Size frequency distribution and morphology. Icarus, 2021, 369, 114529.	2.5	2
62	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
63	Three-axial shape distributions of pebbles, cobbles and boulders smaller than a few meters on asteroid Ryugu. Icarus, 2022, 381, 115007.	2.5	1
64	Extended mission of Hayabusa2. , 2022, , 557-571.		1
65	Development of a Small-Sized Line Heat Source Apparatus for the Thermal Conductivity Measurement of Extraterrestrial Soils. International Journal of Thermophysics, 2022, 43, 1.	2.1	1
66	Development of Numerical Model of the Thermal State of an Asteroid with Locally Rough Surface and Its Application. International Journal of Thermophysics, 2022, 43, 1.	2.1	1
67	Stray Light Analysis by Ray Tracing Simulation for the Wide-Angle Multiband Camera OROCHI onboard the Martian Moons Exploration (MMX) Spacecraft. Advances in Space Research, 2021, 69, 1236-1236.	2.6	0
68	Hayabusa2â€™s kinetic impact experiment. , 2022, , 291-312.		0