

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	Samples returned from the asteroid Ryugu are similar to Ivuna-type carbonaceous meteorites. <i>Science</i> , 2023, 379, .	12.6	97
2	Resurfacing processes constrained by crater distribution on Ryugu. <i>Icarus</i> , 2022, 377, 114911.	2.5	6
3	Mid-infrared emissivity of partially dehydrated asteroid (162173) Ryugu shows strong signs of aqueous alteration. <i>Nature Communications</i> , 2022, 13, 364.	12.8	10
4	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
5	Three-axial shape distributions of pebbles, cobbles and boulders smaller than a few meters on asteroid Ryugu. <i>Icarus</i> , 2022, 381, 115007.	2.5	1
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	Extended mission of Hayabusa2. , 2022, , 557-571.		1
8	Hayabusa2's kinetic impact experiment. , 2022, , 291-312.		0
9	Development of a Small-Sized Line Heat Source Apparatus for the Thermal Conductivity Measurement of Extraterrestrial Soils. <i>International Journal of Thermophysics</i> , 2022, 43, 1.	2.1	1
10	Development of Numerical Model of the Thermal State of an Asteroid with Locally Rough Surface and Its Application. <i>International Journal of Thermophysics</i> , 2022, 43, 1.	2.1	1
11	Full-Field Modeling of Heat Transfer in Asteroid Regolith: 2. Effects of Porosity. <i>Journal of Geophysical Research E: Planets</i> , 2022, 127, .	3.6	7
12	Site selection for the Hayabusa2 artificial cratering and subsurface material sampling on Ryugu. <i>Planetary and Space Science</i> , 2022, 219, 105519.	1.7	4
13	Spacecraft sample collection and subsurface excavation of asteroid (101955) Bennu. <i>Science</i> , 2022, 377, 285-291.	12.6	39
14	Crater depth-to-diameter ratios on asteroid 162173 Ryugu. <i>Icarus</i> , 2021, 354, 114016.	2.5	12
15	Spectral characterization of the craters of Ryugu as observed by the NIRS3 instrument on-board Hayabusa2. <i>Icarus</i> , 2021, 357, 114253.	2.5	7
16	Collisional history of Ryugu's parent body from bright surface boulders. <i>Nature Astronomy</i> , 2021, 5, 39-45.	10.1	42
17	Thermally altered subsurface material of asteroid (162173) Ryugu. <i>Nature Astronomy</i> , 2021, 5, 246-250.	10.1	47
18	Alignment determination of the Hayabusa2 laser altimeter (LIDAR). <i>Earth, Planets and Space</i> , 2021, 73, .	2.5	3

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19	Size of particles ejected from an artificial impact crater on asteroid 162173 Ryugu. <i>Astronomy and Astrophysics</i> , 2021, 647, A43.	5.1	12
20	Post-arrival calibration of Hayabusa2's optical navigation cameras (ONCs): Severe effects from touchdown events. <i>Icarus</i> , 2021, 360, 114353.	2.5	11
21	Anomalously porous boulders on (162173) Ryugu as primordial materials from its parent body. <i>Nature Astronomy</i> , 2021, 5, 766-774.	10.1	30
22	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
23	Improved method of hydrous mineral detection by latitudinal distribution of 0.7-1.4m surface reflectance absorption on the asteroid Ryugu. <i>Icarus</i> , 2021, 360, 114348.	2.5	9
24	Geologic History and Crater Morphology of Asteroid (162173) Ryugu. <i>Journal of Geophysical Research E: Planets</i> , 2021, 126, e2020JE006572.	3.6	10
25	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
26	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
27	Opposition Observations of 162173 Ryugu: Normal Albedo Map Highlights Variations in Regolith Characteristics. <i>Planetary Science Journal</i> , 2021, 2, 177.	3.6	12
28	Development of image texture analysis technique for boulder distribution measurements: Applications to asteroids Ryugu and Itokawa. <i>Planetary and Space Science</i> , 2021, 204, 105249.	1.7	6
29	Hayabusa2 pinpoint touchdown near the artificial crater on Ryugu: Trajectory design and guidance performance. <i>Advances in Space Research</i> , 2021, 68, 3093-3140.	2.6	9
30	High-resolution observations of bright boulders on asteroid Ryugu: 1. Size frequency distribution and morphology. <i>Icarus</i> , 2021, 369, 114529.	2.5	2
31	High-resolution observations of bright boulders on asteroid Ryugu: 2. Spectral properties. <i>Icarus</i> , 2021, 369, 114591.	2.5	5
32	Spectrally blue hydrated parent body of asteroid (162173) Ryugu. <i>Nature Communications</i> , 2021, 12, 5837.	12.8	23
33	Stray Light Analysis by Ray Tracing Simulation for the Wide-Angle Multiband Camera OROCHI onboard the Martian Moons Exploration (MMX) Spacecraft. <i>Advances in Space Research</i> , 2021, 69, 1236-1236.	2.6	0
34	YORP Effect on Asteroid 162173 Ryugu: Implications for the Dynamical History. <i>Journal of Geophysical Research E: Planets</i> , 2021, 126, e2021JE006863.	3.6	4
35	Surface environment of Phobos and Phobos simulant UTPS. <i>Earth, Planets and Space</i> , 2021, 73, .	2.5	15
36	The spatial distribution of impact craters on Ryugu. <i>Icarus</i> , 2020, 338, 113527.	2.5	25

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37	Hayabusa2 Landing Site Selection: Surface Topography of Ryugu and Touchdown Safety. <i>Space Science Reviews</i> , 2020, 216, 1.	8.1	17
38	Macroporosity and Grain Density of Rubble Pile Asteroid (162173) Ryugu. <i>Journal of Geophysical Research E: Planets</i> , 2020, 125, e2020JE006519.	3.6	27
39	Global photometric properties of (162173) Ryugu. <i>Astronomy and Astrophysics</i> , 2020, 639, A83.	5.1	37
40	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
41	Surface roughness of asteroid (162173) Ryugu and comet 67P/Churyumov-Gerasimenko inferred from in situ observations. <i>Monthly Notices of the Royal Astronomical Society</i> , 2020, 500, 3178-3193.	4.4	11
42	Sample collection from asteroid (162173) Ryugu by Hayabusa2: Implications for surface evolution. <i>Science</i> , 2020, 368, 654-659.	12.6	158
43	Thermophysical properties of the surface of asteroid 162173 Ryugu: Infrared observations and thermal inertia mapping. <i>Icarus</i> , 2020, 348, 113835.	2.5	48
44	Highly porous nature of a primitive asteroid revealed by thermal imaging. <i>Nature</i> , 2020, 579, 518-522.	27.8	100
45	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
46	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
47	Effects of dust layers on thermal emission from airless bodies. <i>Progress in Earth and Planetary Science</i> , 2019, 6, .	3.0	19
48	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
49	Multivariable statistical analysis of spectrophotometry and spectra of (162173) Ryugu as observed by JAXA Hayabusa2 mission. <i>Astronomy and Astrophysics</i> , 2019, 629, A13.	5.1	15
50	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
51	Boulder size and shape distributions on asteroid Ryugu. <i>Icarus</i> , 2019, 331, 179-191.	2.5	107
52	The surface composition of asteroid 162173 Ryugu from Hayabusa2 near-infrared spectroscopy. <i>Science</i> , 2019, 364, 272-275.	12.6	262
53	Hayabusa2 arrives at the carbonaceous asteroid 162173 Ryugu—A spinning top-shaped rubble pile. <i>Science</i> , 2019, 364, 268-272.	12.6	410
54	The geomorphology, color, and thermal properties of Ryugu: Implications for parent-body processes. <i>Science</i> , 2019, 364, 252.	12.6	313

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55	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
56	The MASCOT landing area on asteroid (162173) Ryugu: Stereo-photogrammetric analysis using images of the ONC onboard the Hayabusa2 spacecraft. <i>Astronomy and Astrophysics</i> , 2019, 632, L4.	5.1	9
57	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
58	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
59	Asteroid Ryugu before the Hayabusa2 encounter. <i>Progress in Earth and Planetary Science</i> , 2018, 5, .	3.0	39
60	Thermal conductivity of lunar regolith simulant JSC-1A under vacuum. <i>Icarus</i> , 2018, 309, 13-24.	2.5	54
61	Earth and moon observations by thermal infrared imager on Hayabusa2 and the application to detectability of asteroid 162173 Ryugu. <i>Planetary and Space Science</i> , 2018, 158, 46-52.	1.7	10
62	Thermal Infrared Imaging Experiments of C-Type Asteroid 162173 Ryugu on Hayabusa2. <i>Space Science Reviews</i> , 2017, 208, 255-286.	8.1	64
63	Thermal conductivity model for powdered materials under vacuum based on experimental studies. <i>AIP Advances</i> , 2017, 7, .	1.3	75
64	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
65	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 rgsT /Overlook 10 T 5	8.1	10
66	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
67	Thermal Imaging Performance of TIR Onboard the Hayabusa2 Spacecraft. <i>Space Science Reviews</i> , 2017, 208, 239-254.	8.1	16
68	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