# Takanao Saiki

List of Publications by Year
in descending order

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|---|---|---|---|
| 62 papers | 2,962 citations | 279798 23 h-index | 182427 51 g-index |
| 63 all docs | 63 docs citations | 63 times ranked | 1353 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Samples returned from the asteroid Ryugu are similar to Ivuna-type carbonaceous meteorites. Science, 2023, 379, . | 12.6 | 97 |
| 2 | Pebbles and sand on asteroid (162173) Ryugu: In situ observation and particles returned to Earth. Science, 2022, 375, 1011-1016. | 12.6 | 78 |
| 3 | Preliminary analysis of the Hayabusa2 samples returned from C-type asteroid Ryugu. Nature Astronomy, 2022, 6, 214-220. | 10.1 | 136 |
| 4 | First compositional analysis of Ryugu samples by the MicrOmega hyperspectral microscope. Nature Astronomy, 2022, 6, 221-225. | 10.1 | 65 |
| 5 | Mission objectives, planning, and achievements of Hayabusa2. , 2022, , 5-23. | | 3 |
| 6 | Orbit determination for Hayabusa2. , 2022, , 73-94. | | 0 |
| 7 | Extended mission of Hayabusa2. , 2022, , 557-571. | | 1 |
| 8 | Target markers for image-based autonomous navigation. , 2022, , 341-357. | | 1 |
| 9 | GNC design and results of Hayabusa2â€™s initial remote sensing operations. , 2022, , 137-175. | | 0 |
| 10 | Sensitivity degradation of optical navigation camera and attempts for dust removal. , 2022, , 415-431. | | 1 |
| 11 | MASCOT lander release operation. , 2022, , 229-240. | | 0 |
| 12 | Overview of the Hayabusa2 asteroid proximity operations. , 2022, , 113-136. | | 1 |
| 13 | Landing site selection for the Hayabusa2 mission: Pre-arrival training and post-arrival analyses. , 2022, , 189-208. | | 0 |
| 14 | Hayabusa2â€™s kinetic impact experiment. , 2022, , 291-312. | | 0 |
| 15 | Site selection for the Hayabusa2 artificial cratering and subsurface material sampling on Ryugu. Planetary and Space Science, 2022, 219, 105519. | 1.7 | 4 |
| 16 | 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 |
| 17 | Ballistic deployment of the Hayabusa2 artificial landmarks in the microgravity environment of Ryugu. Icarus, 2021, 358, 114220. | 2.5 | 13 |
| 18 | Collisional history of Ryuguâ€™s parent body from bright surface boulders. Nature Astronomy, 2021, 5, 39-45. | 10.1 | 42 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Thermally altered subsurface material of asteroid (162173) Ryugu. Nature Astronomy, 2021, 5, 246-250. | 10.1 | 47 |
| 20 | Alignment determination of the Hayabusa2 laser altimeter (LIDAR). Earth, Planets and Space, 2021, 73, . | 2.5 | 3 |
| 21 | Simulation of Seismic Wave Propagation on Asteroid Ryugu Induced by The Impact Experiment of The Hayabusa2 Mission: Limited Mass Transport by Low Yield Strength of Porous Regolith. Journal of Geophysical Research E: Planets, 2021, 126, e2020JE006594. | 3.6 | 8 |
| 22 | Size of particles ejected from an artificial impact crater on asteroid 162173 Ryugu. Astronomy and Astrophysics, 2021, 647, A43. | 5.1 | 12 |
| 23 | Anomalously porous boulders on (162173) Ryugu as primordial materials from its parent body. Nature Astronomy, 2021, 5, 766-774. | 10.1 | 30 |
| 24 | The MASCOT lander aboard Hayabusa2: The in-situ exploration of NEA (162173) Ryugu. Planetary and Space Science, 2021, 200, 105200. | 1.7 | 18 |
| 25 | Hayabusa2 extended mission: New voyage to rendezvous with a small asteroid rotating with a short period. Advances in Space Research, 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. Icarus, 2021, 366, 114530. | 2.5 | 24 |
| 27 | 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 |
| 28 | Hayabusa2 operation for MASCOT delivery to Ryugu surface. Planetary and Space Science, 2021, 205, 105288. | 1.7 | 3 |
| 29 | High-resolution observations of bright boulders on asteroid Ryugu: 1. Size frequency distribution and morphology. Icarus, 2021, 369, 114529. | 2.5 | 2 |
| 30 | High-resolution observations of bright boulders on asteroid Ryugu: 2. Spectral properties. Icarus, 2021, 369, 114591. | 2.5 | 5 |
| 31 | Spectrally blue hydrated parent body of asteroid (162173) Ryugu. Nature Communications, 2021, 12, 5837. | 12.8 | 23 |
| 32 | The spatial distribution of impact craters on Ryugu. Icarus, 2020, 338, 113527. | 2.5 | 25 |
| 33 | Improving Hayabusa2 trajectory by combining LIDAR data and a shape model. Icarus, 2020, 338, 113574. | 2.5 | 16 |
| 34 | Hayabusa2 Landing Site Selection: Surface Topography of Ryugu and Touchdown Safety. Space Science Reviews, 2020, 216, 1. | 8.1 | 17 |
| 35 | Motion reconstruction of the small carry-on impactor aboard Hayabusa2. Astrodynamics, 2020, 4, 289-308. | 2.4 | 7 |
| 36 | Hayabusa2â€™s station-keeping operation in the proximity of the asteroid Ryugu. Astrodynamics, 2020, 4, 349-375. | 2.4 | 19 |

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| 37 | The deep-space multi-object orbit determination system and its application to Hayabusa2â€™s asteroid proximity operations. Astrodynamics, 2020, 4, 377-392. | 2.4 | 19 |
| 38 | Guidance, navigation, and control of Hayabusa2 touchdown operations. Astrodynamics, 2020, 4, 393-409. | 2.4 | 25 |
| 39 | Ground-based low altitude hovering technique of Hayabusa2. Astrodynamics, 2020, 4, 331-347. | 2.4 | 4 |
| 40 | Hayabusa2â€™s superior solar conjunction mission operations: planning and post-operation results. Astrodynamics, 2020, 4, 265-288. | 2.4 | 10 |
| 41 | Sample collection from asteroid (162173) Ryugu by Hayabusa2: Implications for surface evolution. Science, 2020, 368, 654-659. | 12.6 | 158 |
| 42 | Hayabusa2 spacecraft dynamics and operational design of final descent and touchdown in sampling mission. , 2020, , . | | 1 |
| 43 | Thermophysical properties of the surface of asteroid 162173 Ryugu: Infrared observations and thermal inertia mapping. Icarus, 2020, 348, 113835. | 2.5 | 48 |
| 44 | Design and flight results of GNC systems in Hayabusa2 descent operations. Astrodynamics, 2020, 4, 105-117. | 2.4 | 19 |
| 45 | Design and Reconstruction of the Hayabusa2 Precision Landing on Ryugu. Journal of Spacecraft and Rockets, 2020, 57, 1033-1060. | 1.9 | 20 |
| 46 | Modeling and analysis of Hayabusa2 touchdown. Astrodynamics, 2020, 4, 119-135. | 2.4 | 30 |
| 47 | Hayabusa2's kinetic impact experiment: Operational planning and results. Acta Astronautica, 2020, 175, 362-374. | 3.2 | 14 |
| 48 | Highly porous nature of a primitive asteroid revealed by thermal imaging. Nature, 2020, 579, 518-522. | 27.8 | 100 |
| 49 | An artificial impact on the asteroid (162173) Ryugu formed a crater in the gravity-dominated regime. Science, 2020, 368, 67-71. | 12.6 | 183 |
| 50 | Image-based autonomous navigation of Hayabusa2 using artificial landmarks: The design and brief in-flight results of the first landing on asteroid Ryugu. Astrodynamics, 2020, 4, 89-103. | 2.4 | 34 |
| 51 | 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 |
| 52 | Hayabusa2 mission status: Landing, roving and cratering on asteroid Ryugu. Acta Astronautica, 2020, 171, 42-54. | 3.2 | 111 |
| 53 | GNC strategies and flight results of Hayabusa2 first touchdown operation. Acta Astronautica, 2020, 174, 131-147. | 3.2 | 19 |
| 54 | Dynamic precise orbit determination of Hayabusa2 using laser altimeter (LIDAR) and image tracking data sets. Earth, Planets and Space, 2020, 72, . | 2.5 | 11 |

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| 55 | Initial Achievements of Hayabusa2 in Asteroid Proximity Phase. Transactions of the Japan Society for Aeronautical and Space Sciences, 2020, 63, 115-123. | 0.7 | 2 |
| 56 | Images from the surface of asteroid Ryugu show rocks similar to carbonaceous chondrite meteorites. Science, 2019, 365, 817-820. | 12.6 | 99 |
| 57 | The surface composition of asteroid 162173 Ryugu from Hayabusa2 near-infrared spectroscopy. Science, 2019, 364, 272-275. | 12.6 | 262 |
| 58 | Hayabusa2 arrives at the carbonaceous asteroid 162173 Ryuguâ€”A spinning topâ€“shaped rubble pile. Science, 2019, 364, 268-272. | 12.6 | 410 |
| 59 | The geomorphology, color, and thermal properties of Ryugu: Implications for parent-body processes. Science, 2019, 364, 252. | 12.6 | 313 |
| 60 | Hayabusa2 Mission Overview. Space Science Reviews, 2017, 208, 3-16. | 8.1 | 228 |
| 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. Space Science Reviews, 2017, 208, 187-212. | 8.1 | 44 |
| 62 | The Small Carry-on Impactor (SCI) and the Hayabusa2 Impact Experiment. Space Science Reviews, 2017, 208, 165-186. | 8.1 | 58 |