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List of Publications by Year
in descending order

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157	11,510	26630 56	29157 104
papers	citations	h-index	g-index

171	171	171	4667
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	Identification of hydrated silicate minerals on Mars using MROâ€CRISM: Geologic context near Nili Fossae and implications for aqueous alteration. Journal of Geophysical Research, 2009, 114, .	3.3	483
3	OSIRIS-REx: Sample Return from Asteroid (101955) Bennu. Space Science Reviews, 2017, 212, 925-984.	8.1	426
4	Hayabusa2 arrives at the carbonaceous asteroid 162173 Ryuguâ€"A spinning topâ€"shaped rubble pile. Science, 2019, 364, 268-272.	12.6	410
5	The Pluto system: Initial results from its exploration by New Horizons. Science, 2015, 350, aad1815.	12.6	407
6	The unexpected surface of asteroid (101955) Bennu. Nature, 2019, 568, 55-60.	27.8	364
7	Initial observations from the Lunar Orbiter Laser Altimeter (LOLA). Geophysical Research Letters, 2010, 37, .	4.0	356
8	Touchdown of the Hayabusa Spacecraft at the Muses Sea on Itokawa. Science, 2006, 312, 1350-1353.	12.6	349
9	The geomorphology, color, and thermal properties of Ryugu: Implications for parent-body processes. Science, 2019, 364, 252.	12.6	313
10	Regolith Migration and Sorting on Asteroid Itokawa. Science, 2007, 316, 1011-1014.	12.6	271
11	Evidence for widespread hydrated minerals on asteroid (101955) Bennu. Nature Astronomy, 2019, 3, 332-340.	10.1	251
12	Topography of the Northern Hemisphere of Mercury from MESSENGER Laser Altimetry. Science, 2012, 336, 217-220.	12.6	223
13	The geology of Pluto and Charon through the eyes of New Horizons. Science, 2016, 351, 1284-1293.	12.6	219
14	Mass and Local Topography Measurements of Itokawa by Hayabusa. Science, 2006, 312, 1344-1347.	12.6	213
15	Characterizing and navigating small bodies with imaging data. Meteoritics and Planetary Science, 2008, 43, 1049-1061.	1.6	209
16	The atmosphere of Pluto as observed by New Horizons. Science, 2016, 351, aad8866.	12.6	201
17	Bright and Dark Polar Deposits on Mercury: Evidence for Surface Volatiles. Science, 2013, 339, 296-300.	12.6	197
18	Properties of rubble-pile asteroid (101955) Bennu from OSIRIS-REx imaging and thermal analysis. Nature Astronomy, 2019, 3, 341-351.	10.1	188

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19	Shape of (101955) Bennu indicative of a rubble pile with internal stiffness. Nature Geoscience, 2019, 12, 247-252.	12.9	179
20	Compact Reconnaissance Imaging Spectrometer for Mars investigation and data set from the Mars Reconnaissance Orbiter's primary science phase. Journal of Geophysical Research, 2009, 114, .	3.3	178
21	AIDA DART asteroid deflection test: Planetary defense and science objectives. Planetary and Space Science, 2018, 157, 104-115.	1.7	162
22	Craters, boulders and regolith of (101955) Bennu indicative of an old and dynamic surface. Nature Geoscience, 2019, 12, 242-246.	12.9	161
23	Sample collection from asteroid (162173) Ryugu by Hayabusa2: Implications for surface evolution. Science, 2020, 368, 654-659.	12.6	158
24	Long-Range Reconnaissance Imager on New Horizons. Space Science Reviews, 2008, 140, 189-215.	8.1	145
25	The dynamic geophysical environment of (101955) Bennu based on OSIRIS-REx measurements. Nature Astronomy, 2019, 3, 352-361.	10.1	132
26	European component of the AIDA mission to a binary asteroid: Characterization and interpretation of the impact of the DART mission. Advances in Space Research, 2018, 62, 2261-2272.	2.6	118
27	Summary of the results from the lunar orbiter laser altimeter after seven years in lunar orbit. Icarus, 2017, 283, 70-91.	2.5	116
28	Asteroid Impact & Deflection Assessment mission: Kinetic impactor. Planetary and Space Science, 2016, 121, 27-35.	1.7	110
29	The Double Asteroid Redirection Test (DART): Planetary Defense Investigations and Requirements. Planetary Science Journal, 2021, 2, 173.	3.6	110
30	The operational environment and rotational acceleration of asteroid (101955) Bennu from OSIRIS-REx observations. Nature Communications, 2019, 10, 1291.	12.8	99
31	Developing space weathering on the asteroid 25143 Itokawa. Nature, 2006, 443, 56-58.	27.8	97
32	The OSIRIS-REx Laser Altimeter (OLA) Investigation and Instrument. Space Science Reviews, 2017, 212, 899-924.	8.1	97
33	Boulders and ponds on the Asteroid 433 Eros. Icarus, 2010, 210, 713-721.	2.5	95
34	Science case for the Asteroid Impact Mission (AIM): A component of the Asteroid Impact & Deflection Assessment (AIDA) mission. Advances in Space Research, 2016, 57, 2529-2547.	2.6	95
35	The geophysical environment of Bennu. Icarus, 2016, 276, 116-140.	2.5	92
36	Collisional formation of top-shaped asteroids and implications for the origins of Ryugu and Bennu. Nature Communications, 2020, 11, 2655.	12.8	87

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37	Asteroid (101955) Bennuâ€™s weak boulders and thermally anomalous equator. Science Advances, 2020, 6, .	10.3	83
38	Lobateness of impact ejecta deposits from atmospheric interactions. Journal of Geophysical Research, 1998, 103, 25739-25756.	3.3	82
39	Exposure of spectrally distinct material by impact craters on Mercury: Implications for global stratigraphy. Icarus, 2010, 209, 210-223.	2.5	82
40	The ESA Hera Mission: Detailed Characterization of the DART Impact Outcome and of the Binary Asteroid (65803) Didymos. Planetary Science Journal, 2022, 3, 160.	3.6	82
41	Digital terrain mapping by the OSIRIS-REx mission. Planetary and Space Science, 2020, 180, 104764.	1.7	81
42	Small-scale topography of 25143 Itokawa from the Hayabusa laser altimeter. Icarus, 2008, 198, 108-124.	2.5	79
43	The small satellites of Pluto as observed by New Horizons. Science, 2016, 351, aae0030.	12.6	78
44	A survey of possible impact structures on 25143 Itokawa. Icarus, 2009, 200, 486-502.	2.5	75
45	Creep stability of the proposed AIDA mission target 65803 Didymos: I. Discrete cohesionless granular physics model. Icarus, 2017, 294, 98-123.	2.5	74
46	Relative depths of simple craters and the nature of the lunar regolith. Icarus, 2017, 298, 34-48.	2.5	73
47	Block distributions on Itokawa. Icarus, 2014, 229, 181-189.	2.5	71
48	Bright carbonate veins on asteroid (101955) Bennu: Implications for aqueous alteration history. Science, 2020, 370, .	12.6	71
49	Rotational Failure of Rubble-pile Bodies: Influences of Shear and Cohesive Strengths. Astrophysical Journal, 2018, 857, 15.	4.5	70
50	433 Eros lineaments: Global mapping and analysis. Icarus, 2008, 193, 39-52.	2.5	68
51	Small-Scale Topography of 433 Eros from Laser Altimetry and Imaging. Icarus, 2002, 155, 51-74.	2.5	66
52	Largeâ€scale troughs on Vesta: A signature of planetary tectonics. Geophysical Research Letters, 2012, 39, .	4.0	63
53	Bennuâ€™s near-Earth lifetime of 1.75 million years inferred from craters on its boulders. Nature, 2020, 587, 205-209.	27.8	62
54	Plutoâ€™s interaction with its space environment: Solar wind, energetic particles, and dust. Science, 2016, 351, aad9045.	12.6	60

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55	Global Patterns of Recent Mass Movement on Asteroid (101955) Bennu. Journal of Geophysical Research E: Planets, 2020, 125, e2020JE006475.	3.6	60
56	Hemispherical differences in the shape and topography of asteroid (101955) Bennu. Science Advances, 2020, 6, .	10.3	57
57	Exogenic basalt on asteroid (101955) Bennu. Nature Astronomy, 2021, 5, 31-38.	10.1	57
58	Aeolian sediment transport pathways and aerodynamics at troughs on Mars. Journal of Geophysical Research, 2004, 109, .	3.3	53
59	Comparing landslides to fluidized crater ejecta on Mars. Journal of Geophysical Research, 2005, 110, .	3.3	53
60	The morphology of craters on Mercury: Results from MESSENGER flybys. Icarus, 2012, 219, 414-427.	2.5	53
61	Physical constraints on impact melt properties from Lunar Reconnaissance Orbiter Camera images. Icarus, 2012, 219, 665-675.	2.5	51
62	Heterogeneous mass distribution of the rubble-pile asteroid (101955) Bennu. Science Advances, 2020, 6, .	10.3	50
63	Stratigraphy of the Caloris basin, Mercury: Implications for volcanic history and basin impact melt. Icarus, 2015, 250, 413-429.	2.5	49
64	Topographic characterization of lunar complex craters. Geophysical Research Letters, 2013, 40, 38-42.	4.0	48
65	Laser Altimeter Observations from MESSENGER's First Mercury Flyby. Science, 2008, 321, 77-79.	12.6	44
66	The effect of the Caloris impact on the mantle dynamics and volcanism of Mercury. Journal of Geophysical Research, 2012, 117, .	3.3	44
67	The formation of fluidized ejecta on Mars by granular flows. Meteoritics and Planetary Science, 2006, 41, 1551-1569.	1.6	43
68	The equatorial shape and gravity field of Mercury from MESSENGER flybys 1 and 2. Icarus, 2010, 209, 88-100.	2.5	43
69	A high-resolution global basemap of (101955) Bennu. Icarus, 2021, 357, 113690.	2.5	41
70	Spacecraft sample collection and subsurface excavation of asteroid (101955) Bennu. Science, 2022, 377, 285-291.	12.6	39
71	Laser Altimetry of Small-Scale Features on 433 Eros from NEAR-Shoemaker. Science, 2001, 292, 488-491.	12.6	38
72	Non-intrusive measurements of crater growth. Icarus, 2007, 188, 506-521.	2.5	38

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73	Investigating the interactions between an atmosphere and an ejecta curtain: 2. Numerical experiments. Journal of Geophysical Research, 1999, 104, 27117-27131.	3.3	37
74	Morphometry of impact craters on Mercury from MESSENGER altimetry and imaging. Icarus, 2016, 271, 180-193.	2.5	37
75	The lowâ€degree shape of Mercury. Geophysical Research Letters, 2015, 42, 6951-6958.	4.0	36
76	Modeling impact outcomes for the Double Asteroid Redirection Test (DART) mission. Procedia Engineering, 2017, 204, 116-123.	1.2	35
77	Constraints on the detection of cryovolcanic plumes on Europa. Planetary and Space Science, 2013, 86, 1-9.	1.7	34
78	Interpreting the Cratering Histories of Bennu, Ryugu, and Other Spacecraft-explored Asteroids. Astronomical Journal, 2020, 160, 14.	4.7	34
79	Giant Craters on Mathilde. Icarus, 1999, 140, 34-48.	2.5	33
80	Investigating the interactions between an atmosphere and an ejecta curtain: 1. Wind tunnel tests. Journal of Geophysical Research, 1999, 104, 27105-27115.	3.3	33
81	Creep stability of the DART/Hera mission target 65803 Didymos: II. The role of cohesion. Icarus, 2021, 362, 114433.	2.5	33
82	Global shape modeling using the OSIRIS-REx scanning Laser Altimeter. Planetary and Space Science, 2019, 177, 104688.	1.7	32
83	Modeling Momentum Transfer from Kinetic Impacts: Implications for Redirecting Asteroids. Procedia Engineering, 2015, 103, 577-584.	1.2	31
84	Near-zero cohesion and loose packing of Bennuâ€™s near subsurface revealed by spacecraft contact. Science Advances, 2022, 8, .	10.3	31
85	Visualization of the failure of quartz under quasiâ€static and dynamic compression. Journal of Geophysical Research, 2010, 115, .	3.3	30
86	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
87	Disk-resolved photometric modeling and properties of asteroid (101955) Bennu. Icarus, 2021, 357, 113724.	2.5	29
88	Spin-driven evolution of asteroids' top-shapes at fast and slow spins seen from (101955) Bennu and (162173) Ryugu. Icarus, 2020, 352, 113946.	2.5	28
89	An empirical approach to studying debris flows: Implications for planetary modeling studies. Journal of Geophysical Research, 2002, 107, 9-1.	3.3	23
90	Examining the Potential Contribution of the Hokusai Impact to Water Ice on Mercury. Journal of Geophysical Research E: Planets, 2018, 123, 2628-2646.	3.6	23

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91	Using a discrete element method to investigate seismic response and spin change of 99942 Apophis during its 2029 tidal encounter with Earth. Icarus, 2019, 328, 93-103.	2.5	22
92	Practical Stereophotoclinometry for Modeling Shape and Topography on Planetary Missions. Planetary Science Journal, 2022, 3, 102.	3.6	22
93	New insights into gully formation on Mars: Constraints from composition as seen by MRO/CRISM. Geophysical Research Letters, 2016, 43, 8893-8902.	4.0	21
94	Modified granular impact force laws for the OSIRIS-REx touchdown on the surface of asteroid (101955) Bennu. Monthly Notices of the Royal Astronomical Society, 2021, 507, 5087-5105.	4.4	21
95	An empirical model for transient crater growth in granular targets based on direct observations. Icarus, 2009, 203, 310-319.	2.5	20
96	The Morphometry of Impact Craters on Bennu. Geophysical Research Letters, 2020, 47, e2020GL089672.	4.0	20
97	Crater population on asteroid (101955) Bennu indicates impact armouring and a young surface. Nature Geoscience, 2022, 15, 440-446.	12.9	20
98	Impacts into coarse-grained spheres at moderate impact velocities: Implications for cratering on asteroids and planets. Icarus, 2019, 325, 67-83.	2.5	19
99	Low surface strength of the asteroid Bennu inferred from impact ejecta deposit. Nature Geoscience, 2022, 15, 447-452.	12.9	19
100	An overview of the LIDAR observations of asteroid 25143 Itokawa. Advances in Space Research, 2007, 40, 187-192.	2.6	18
101	Impact modeling for the Double Asteroid Redirection Test (DART) mission. International Journal of Impact Engineering, 2020, 142, 103528.	5.0	18
102	Measurement of the radius of Mercury by radio occultation during the MESSENGER flybys. Planetary and Space Science, 2011, 59, 1925-1931.	1.7	17
103	The surface roughness of Mercury from the Mercury Laser Altimeter: Investigating the effects of volcanism, tectonism, and impact cratering. Journal of Geophysical Research E: Planets, 2017, 122, 1372-1390.	3.6	17
104	Validation of Stereophotoclinometric Shape Models of Asteroid (101955) Bennu during the OSIRIS-REx Mission. Planetary Science Journal, 2021, 2, 82.	3.6	17
105	The Use of Digital Terrain Models for Natural Feature Tracking at Asteroid Bennu. Planetary Science Journal, 2022, 3, 100.	3.6	17
106	Origin and flatness of ponds on asteroid 433 Eros. Meteoritics and Planetary Science, 2014, 49, 1735-1748.	1.6	16
107	Modes of ejecta emplacement at Martian craters from laboratory experiments of an expanding vortex ring interacting with a particle layer. Geophysical Research Letters, 2007, 34, .	4.0	15
108	Rotational states and shapes of Ryugu and Bennu: Implications for interior structure and strength. Planetary and Space Science, 2021, 204, 105268.	1.7	15

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109	Internal rubble properties of asteroid (101955) Bennu. Icarus, 2021, 370, 114665.	2.5	15
110	Autonomous Navigation Performance Using Natural Feature Tracking during the OSIRIS-REx Touch-and-Go Sample Collection Event. Planetary Science Journal, 2022, 3, 101.	3.6	15
111	A high-resolution normal albedo map of asteroid (101955) Bennu. Icarus, 2021, 355, 114133.	2.5	14
112	The Formation of Terraces on Asteroid (101955) Bennu. Journal of Geophysical Research E: Planets, 2022, 127, .	3.6	14
113	Quality Assessment of Stereophotoclinometry as a Shape Modeling Method Using a Synthetic Asteroid. Planetary Science Journal, 2022, 3, 103.	3.6	14
114	Shallow basins on Mercury: Evidence of relaxation?. Earth and Planetary Science Letters, 2009, 285, 355-363.	4.4	13
115	Lutetia×³s lineaments. Planetary and Space Science, 2014, 101, 186-195.	1.7	13
116	The global surface roughness of 25143 Itokawa. Icarus, 2019, 325, 141-152.	2.5	13
117	Cratering on Asteroids. , 2015, , .		13
118	Global geologic map of asteroid (101955) Bennu indicates heterogeneous resurfacing in the past 500,000Âyears. Icarus, 2022, 381, 114992.	2.5	13
119	Fundamentally distinct outcomes of asteroid collisional evolution: Itokawa and Eros. Geophysical Research Letters, 2007, 34, .	4.0	12
120	Assessing the Sampleability of Bennuâ€™s Surface for the OSIRIS-REx Asteroid Sample Return Mission. Space Science Reviews, 2022, 218, 20.	8.1	12
121	Double Asteroid Redirection Test (DART): Structural and Dynamic Interactions between Asteroidal Elements of Binary Asteroid (65803) Didymos. Planetary Science Journal, 2022, 3, 140.	3.6	12
122	A model for impact-induced lineament formation and porosity growth on Eros. Icarus, 2016, 266, 76-87.	2.5	11
123	Improved techniques for sizeâ€“frequency distribution analysis in the planetary sciences: Application to blocks on 25143 Itokawa. Icarus, 2015, 247, 77-80.	2.5	10
124	Impact Cratering of Mercury. , 2018, , 217-248.		10
125	Assessing stereophotoclinometry by modeling a physical wall representing asteroid Bennu. Planetary and Space Science, 2020, 193, 105077.	1.7	10
126	Geologic History and Crater Morphology of Asteroid (162173) Ryugu. Journal of Geophysical Research E: Planets, 2021, 126, e2020JE006572.	3.6	10

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127	Geologic Context of the OSIRIS-REx Sample Site from High-resolution Topography and Imaging. Planetary Science Journal, 2022, 3, 75.	3.6	10
128	Interactions between an impact generated ejecta curtain and an atmosphere. International Journal of Impact Engineering, 1999, 23, 51-62.	5.0	8
129	Methodology for finding and evaluating safe landing sites on small bodies. Planetary and Space Science, 2016, 134, 71-81.	1.7	8
130	Modeling optical roughness and first-order scattering processes from OSIRIS-REx color images of the rough surface of asteroid (101955) Bennu. Icarus, 2021, 357, 114106.	2.5	8
131	Ground Testing of Digital Terrain Models to Prepare for OSIRIS-REx Autonomous Vision Navigation Using Natural Feature Tracking. Planetary Science Journal, 2022, 3, 104.	3.6	8
132	Rheologic inferences from high water marks of debris flows. Geophysical Research Letters, 2002, 29, 49-1-49-4.	4.0	7
133	Observational bias and the apparent distribution of ponds on Eros. Icarus, 2014, 241, 160-164.	2.5	7
134	The global surface roughness of 433 Eros from the NEAR laser rangefinder. Icarus, 2018, 314, 299-310.	2.5	6
135	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
136	Mass and Shape Determination of (101955) Bennu Using Differenced Data from Multiple OSIRIS-REx Mission Phases. Planetary Science Journal, 2021, 2, 219.	3.6	6
137	Highâ€Resolution Thermophysical Analysis of the OSIRISâ€REx Sample Site and Three Other Regions of Interest on Bennu. Journal of Geophysical Research E: Planets, 2022, 127, .	3.6	5
138	The Main-belt Asteroid and NEO Tour with Imaging and Spectroscopy (MANTIS). , 2016, , .		4
139	The Surface Roughness of Large Craters on Mercury. Journal of Geophysical Research E: Planets, 2018, 123, 1581-1595.	3.6	4
140	Regional Photometric Modeling of Asteroid (101955) Bennu. Planetary Science Journal, 2021, 2, 124.	3.6	4
141	PHOTOGRAMMETRIC PROCESSING OF OSIRIS-REX IMAGES OF ASTEROID (101955) BENNU. ISPRS Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences, 0, V-3-2020, 587-594.	0.0	4
142	Sampling a planetary surface with a pyrotechnic rock chipper. , 0, , .		3
143	The Role of Target Heterogeneity in Impact Crater Formation: Numerical Results. Procedia Engineering, 2017, 204, 421-428.	1.2	3
144	Morphometry and Temperature of Simple Craters in Mercuryâ€™s Northern Hemisphere: Implications for Stability of Water Ice. Planetary Science Journal, 2021, 2, 97.	3.6	3

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145	The morphometry of small impact craters on Bennu: Relationships to geologic units, boulders, and impact armoring. Icarus, 2022, 384, 115058.	2.5	3
146	Development and Flight Performance of the Autonomous Navigation Feature Catalog for OSIRIS-REx Asteroid Sample Collection. , 2022, , .		2
147	The SSDC Role in the LICIACube Mission: Data Management and the MATISSE Tool. Planetary Science Journal, 2022, 3, 126.	3.6	2
148	CONTOUR forward imager on the Comet Nucleus Tour mission. , 2004, , .		1
149	Correction to â€œVisualization of the failure of quartz under quasiâ€static and dynamic compressionâ€• Journal of Geophysical Research, 2012, 117, .	3.3	1
150	Preliminary laboratory investigations of ejecta emplacement dynamics and morphology with planetary applications. Planetary and Space Science, 2018, 160, 39-55.	1.7	1
151	The JHUAPL Planetary Impact Lab (PIL): Capabilities and initial results. , 2019, , .		1
152	The OSIRIS-REx Laser Altimeter. , 2017, , .		0
153	Technology Development for Planetary Defense In Situ Spacecraft Missions to Near-Earth Objects. , 2021, 53, .		0
154	Research and Analysis for Planetary Defense In Situ Spacecraft Missions to Near-Earth Objects. , 2021, 53, .		0
155	Strength In Diversity: Small Bodies as the Most Important Objects in Planetary Sciences. , 2021, 53, .		0
156	Impact Modeling for the Double Asteroid Redirection Test Mission. , 2019, , .		0
157	Correction: Development and Flight Performance of the Autonomous Navigation Feature Catalog for OSIRIS-REx Asteroid Sample Collection. , 2022, , .		0