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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	Correction: Development and Flight Performance of the Autonomous Navigation Feature Catalog for OSIRIS-REx Asteroid Sample Collection. , 2022, , .		0
2	Development and Flight Performance of the Autonomous Navigation Feature Catalog for OSIRIS-REx Asteroid Sample Collection. , 2022, , .		2
3	Global geologic map of asteroid (101955) Bennu indicates heterogeneous resurfacing in the past 500,000Âyears. Icarus, 2022, 381, 114992.	2.5	13
4	Geologic Context of the OSIRIS-REx Sample Site from High-resolution Topography and Imaging. Planetary Science Journal, 2022, 3, 75.	3.6	10
5	Crater population on asteroid (101955) Bennu indicates impact armouring and a young surface. Nature Geoscience, 2022, 15, 440-446.	12.9	20
6	The Formation of Terraces on Asteroid (101955) Bennu. Journal of Geophysical Research E: Planets, 2022, 127, .	3.6	14
7	Low surface strength of the asteroid Bennu inferred from impact ejecta deposit. Nature Geoscience, 2022, 15, 447-452.	12.9	19
8	Assessing the Sampleability of Bennuâ€™s Surface for the OSIRIS-REx Asteroid Sample Return Mission. Space Science Reviews, 2022, 218, 20.	8.1	12
9	The Use of Digital Terrain Models for Natural Feature Tracking at Asteroid Bennu. Planetary Science Journal, 2022, 3, 100.	3.6	17
10	Practical Stereophotoclinometry for Modeling Shape and Topography on Planetary Missions. Planetary Science Journal, 2022, 3, 102.	3.6	22
11	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
12	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
13	Quality Assessment of Stereophotoclinometry as a Shape Modeling Method Using a Synthetic Asteroid. Planetary Science Journal, 2022, 3, 103.	3.6	14
14	The morphometry of small impact craters on Bennu: Relationships to geologic units, boulders, and impact armoring. Icarus, 2022, 384, 115058.	2.5	3
15	The SSDC Role in the LICIACube Mission: Data Management and the MATISSE Tool. Planetary Science Journal, 2022, 3, 126.	3.6	2
16	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
17	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
18	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

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19	Near-zero cohesion and loose packing of Bennuâ€™s near subsurface revealed by spacecraft contact. Science Advances, 2022, 8, .	10.3	31
20	Spacecraft sample collection and subsurface excavation of asteroid (101955) Bennu. Science, 2022, 377, 285-291.	12.6	39
21	Disk-resolved photometric modeling and properties of asteroid (101955) Bennu. Icarus, 2021, 357, 113724.	2.5	29
22	A high-resolution global basemap of (101955) Bennu. Icarus, 2021, 357, 113690.	2.5	41
23	A high-resolution normal albedo map of asteroid (101955) Bennu. Icarus, 2021, 355, 114133.	2.5	14
24	Exogenic basalt on asteroid (101955) Bennu. Nature Astronomy, 2021, 5, 31-38.	10.1	57
25	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
26	Technology Development for Planetary Defense In Situ Spacecraft Missions to Near-Earth Objects. , 2021, 53, .		0
27	Research and Analysis for Planetary Defense In Situ Spacecraft Missions to Near-Earth Objects. , 2021, 53, .		0
28	Strength In Diversity: Small Bodies as the Most Important Objects in Planetary Sciences. , 2021, 53, .		0
29	Validation of Stereophotoclinometric Shape Models of Asteroid (101955) Bennu during the OSIRIS-REx Mission. Planetary Science Journal, 2021, 2, 82.	3.6	17
30	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
31	Creep stability of the DART/Hera mission target 65803 Didymos: II. The role of cohesion. Icarus, 2021, 362, 114433.	2.5	33
32	Regional Photometric Modeling of Asteroid (101955) Bennu. Planetary Science Journal, 2021, 2, 124.	3.6	4
33	Geologic History and Crater Morphology of Asteroid (162173) Ryugu. Journal of Geophysical Research E: Planets, 2021, 126, e2020JE006572.	3.6	10
34	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
35	The Double Asteroid Redirection Test (DART): Planetary Defense Investigations and Requirements. Planetary Science Journal, 2021, 2, 173.	3.6	110
36	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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37	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
38	Internal rubble properties of asteroid (101955) Bennu. Icarus, 2021, 370, 114665.	2.5	15
39	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
40	Digital terrain mapping by the OSIRIS-REx mission. Planetary and Space Science, 2020, 180, 104764.	1.7	81
41	Hemispherical differences in the shape and topography of asteroid (101955) Bennu. Science Advances, 2020, 6, .	10.3	57
42	Heterogeneous mass distribution of the rubble-pile asteroid (101955) Bennu. Science Advances, 2020, 6, .	10.3	50
43	Bright carbonate veins on asteroid (101955) Bennu: Implications for aqueous alteration history. Science, 2020, 370, .	12.6	71
44	Asteroid (101955) Bennuâ€™s weak boulders and thermally anomalous equator. Science Advances, 2020, 6, .	10.3	83
45	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
46	The Morphometry of Impact Craters on Bennu. Geophysical Research Letters, 2020, 47, e2020GL089672.	4.0	20
47	Bennuâ€™s near-Earth lifetime of 1.75 million years inferred from craters on its boulders. Nature, 2020, 587, 205-209.	27.8	62
48	Global Patterns of Recent Mass Movement on Asteroid (101955) Bennu. Journal of Geophysical Research E: Planets, 2020, 125, e2020JE006475.	3.6	60
49	Assessing stereophotoclinometry by modeling a physical wall representing asteroid Bennu. Planetary and Space Science, 2020, 193, 105077.	1.7	10
50	Sample collection from asteroid (162173) Ryugu by Hayabusa2: Implications for surface evolution. Science, 2020, 368, 654-659.	12.6	158
51	Collisional formation of top-shaped asteroids and implications for the origins of Ryugu and Bennu. Nature Communications, 2020, 11, 2655.	12.8	87
52	Interpreting the Cratering Histories of Bennu, Ryugu, and Other Spacecraft-explored Asteroids. Astronomical Journal, 2020, 160, 14.	4.7	34
53	Impact modeling for the Double Asteroid Redirection Test (DART) mission. International Journal of Impact Engineering, 2020, 142, 103528.	5.0	18
54	Global shape modeling using the OSIRIS-REx scanning Laser Altimeter. Planetary and Space Science, 2019, 177, 104688.	1.7	32

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55	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
56	The operational environment and rotational acceleration of asteroid (101955) Bennu from OSIRIS-REx observations. Nature Communications, 2019, 10, 1291.	12.8	99
57	The dynamic geophysical environment of (101955) Bennu based on OSIRIS-REx measurements. Nature Astronomy, 2019, 3, 352-361.	10.1	132
58	Evidence for widespread hydrated minerals on asteroid (101955) Bennu. Nature Astronomy, 2019, 3, 332-340.	10.1	251
59	Properties of rubble-pile asteroid (101955) Bennu from OSIRIS-REx imaging and thermal analysis. Nature Astronomy, 2019, 3, 341-351.	10.1	188
60	Craters, boulders and regolith of (101955) Bennu indicative of an old and dynamic surface. Nature Geoscience, 2019, 12, 242-246.	12.9	161
61	Shape of (101955) Bennu indicative of a rubble pile with internal stiffness. Nature Geoscience, 2019, 12, 247-252.	12.9	179
62	The unexpected surface of asteroid (101955) Bennu. Nature, 2019, 568, 55-60.	27.8	364
63	Hayabusa2 arrives at the carbonaceous asteroid 162173 Ryuguâ€”A spinning topâ€“shaped rubble pile. Science, 2019, 364, 268-272.	12.6	410
64	The geomorphology, color, and thermal properties of Ryugu: Implications for parent-body processes. Science, 2019, 364, 252.	12.6	313
65	The global surface roughness of 25143 Itokawa. Icarus, 2019, 325, 141-152.	2.5	13
66	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
67	Impacts into coarse-grained spheres at moderate impact velocities: Implications for cratering on asteroids and planets. Icarus, 2019, 325, 67-83.	2.5	19
68	The JHUAPL Planetary Impact Lab (PIL): Capabilities and initial results. , 2019, , .		1
69	Impact Modeling for the Double Asteroid Redirection Test Mission. , 2019, , .		0
70	AIDA DART asteroid deflection test: Planetary defense and science objectives. Planetary and Space Science, 2018, 157, 104-115.	1.7	162
71	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
72	The Surface Roughness of Large Craters on Mercury. Journal of Geophysical Research E: Planets, 2018, 123, 1581-1595.	3.6	4

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73	Impact Cratering of Mercury. , 2018, , 217-248.		10
74	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
75	Rotational Failure of Rubble-pile Bodies: Influences of Shear and Cohesive Strengths. Astrophysical Journal, 2018, 857, 15.	4.5	70
76	Preliminary laboratory investigations of ejecta emplacement dynamics and morphology with planetary applications. Planetary and Space Science, 2018, 160, 39-55.	1.7	1
77	The global surface roughness of 433 Eros from the NEAR laser rangefinder. Icarus, 2018, 314, 299-310.	2.5	6
78	Creep stability of the proposed AIDA mission target 65803 Didymos: I. Discrete cohesionless granular physics model. Icarus, 2017, 294, 98-123.	2.5	74
79	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
80	Relative depths of simple craters and the nature of the lunar regolith. Icarus, 2017, 298, 34-48.	2.5	73
81	OSIRIS-REx: Sample Return from Asteroid (101955) Bennu. Space Science Reviews, 2017, 212, 925-984.	8.1	426
82	The OSIRIS-REx Laser Altimeter (OLA) Investigation and Instrument. Space Science Reviews, 2017, 212, 899-924.	8.1	97
83	Modeling impact outcomes for the Double Asteroid Redirection Test (DART) mission. Procedia Engineering, 2017, 204, 116-123.	1.2	35
84	Summary of the results from the lunar orbiter laser altimeter after seven years in lunar orbit. Icarus, 2017, 283, 70-91.	2.5	116
85	The Role of Target Heterogeneity in Impact Crater Formation: Numerical Results. Procedia Engineering, 2017, 204, 421-428.	1.2	3
86	The OSIRIS-REx Laser Altimeter. , 2017, , .		0
87	A model for impact-induced lineament formation and porosity growth on Eros. Icarus, 2016, 266, 76-87.	2.5	11
88	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
89	Morphometry of impact craters on Mercury from MESSENGER altimetry and imaging. Icarus, 2016, 271, 180-193.	2.5	37
90	The geophysical environment of Bennu. Icarus, 2016, 276, 116-140.	2.5	92

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91	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
92	The Main-belt Asteroid and NEO Tour with Imaging and Spectroscopy (MANTIS). , 2016, , .		4
93	Methodology for finding and evaluating safe landing sites on small bodies. Planetary and Space Science, 2016, 134, 71-81.	1.7	8
94	The atmosphere of Pluto as observed by New Horizons. Science, 2016, 351, aad8866.	12.6	201
95	Plutoâ€™s interaction with its space environment: Solar wind, energetic particles, and dust. Science, 2016, 351, aad9045.	12.6	60
96	The small satellites of Pluto as observed by New Horizons. Science, 2016, 351, aae0030.	12.6	78
97	The geology of Pluto and Charon through the eyes of New Horizons. Science, 2016, 351, 1284-1293.	12.6	219
98	Asteroid Impact & Deflection Assessment mission: Kinetic impactor. Planetary and Space Science, 2016, 121, 27-35.	1.7	110
99	The lowâ€degree shape of Mercury. Geophysical Research Letters, 2015, 42, 6951-6958.	4.0	36
100	Modeling Momentum Transfer from Kinetic Impacts: Implications for Redirecting Asteroids. Procedia Engineering, 2015, 103, 577-584.	1.2	31
101	The Pluto system: Initial results from its exploration by New Horizons. Science, 2015, 350, aad1815.	12.6	407
102	Stratigraphy of the Caloris basin, Mercury: Implications for volcanic history and basin impact melt. Icarus, 2015, 250, 413-429.	2.5	49
103	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
104	Cratering on Asteroids. , 2015, , .		13
105	Origin and flatness of ponds on asteroid 433 Eros. Meteoritics and Planetary Science, 2014, 49, 1735-1748.	1.6	16
106	Block distributions on Itokawa. Icarus, 2014, 229, 181-189.	2.5	71
107	Lutetia×³s lineaments. Planetary and Space Science, 2014, 101, 186-195.	1.7	13
108	Observational bias and the apparent distribution of ponds on Eros. Icarus, 2014, 241, 160-164.	2.5	7

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109	Constraints on the detection of cryovolcanic plumes on Europa. Planetary and Space Science, 2013, 86, 1-9.	1.7	34
110	Bright and Dark Polar Deposits on Mercury: Evidence for Surface Volatiles. Science, 2013, 339, 296-300.	12.6	197
111	Topographic characterization of lunar complex craters. Geophysical Research Letters, 2013, 40, 38-42.	4.0	48
112	Topography of the Northern Hemisphere of Mercury from MESSENGER Laser Altimetry. Science, 2012, 336, 217-220.	12.6	223
113	The effect of the Caloris impact on the mantle dynamics and volcanism of Mercury. Journal of Geophysical Research, 2012, 117, .	3.3	44
114	Largeâ€scale troughs on Vesta: A signature of planetary tectonics. Geophysical Research Letters, 2012, 39, .	4.0	63
115	Correction to â€œVisualization of the failure of quartz under quasiâ€static and dynamic compressionâ€. Journal of Geophysical Research, 2012, 117, .	3.3	1
116	The morphology of craters on Mercury: Results from MESSENGER flybys. Icarus, 2012, 219, 414-427.	2.5	53
117	Physical constraints on impact melt properties from Lunar Reconnaissance Orbiter Camera images. Icarus, 2012, 219, 665-675.	2.5	51
118	Measurement of the radius of Mercury by radio occultation during the MESSENGER flybys. Planetary and Space Science, 2011, 59, 1925-1931.	1.7	17
119	The equatorial shape and gravity field of Mercury from MESSENGER flybys 1 and 2. Icarus, 2010, 209, 88-100.	2.5	43
120	Exposure of spectrally distinct material by impact craters on Mercury: Implications for global stratigraphy. Icarus, 2010, 209, 210-223.	2.5	82
121	Boulders and ponds on the Asteroid 433 Eros. Icarus, 2010, 210, 713-721.	2.5	95
122	Visualization of the failure of quartz under quasiâ€static and dynamic compression. Journal of Geophysical Research, 2010, 115, .	3.3	30
123	Initial observations from the Lunar Orbiter Laser Altimeter (LOLA). Geophysical Research Letters, 2010, 37, .	4.0	356
124	A survey of possible impact structures on 25143 Itokawa. Icarus, 2009, 200, 486-502.	2.5	75
125	An empirical model for transient crater growth in granular targets based on direct observations. Icarus, 2009, 203, 310-319.	2.5	20
126	Shallow basins on Mercury: Evidence of relaxation?. Earth and Planetary Science Letters, 2009, 285, 355-363.	4.4	13

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127	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
128	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
129	433 Eros lineaments: Global mapping and analysis. Icarus, 2008, 193, 39-52.	2.5	68
130	Long-Range Reconnaissance Imager on New Horizons. Space Science Reviews, 2008, 140, 189-215.	8.1	145
131	Small-scale topography of 25143 Itokawa from the Hayabusa laser altimeter. Icarus, 2008, 198, 108-124.	2.5	79
132	Characterizing and navigating small bodies with imaging data. Meteoritics and Planetary Science, 2008, 43, 1049-1061.	1.6	209
133	Laser Altimeter Observations from MESSENGER's First Mercury Flyby. Science, 2008, 321, 77-79.	12.6	44
134	Regolith Migration and Sorting on Asteroid Itokawa. Science, 2007, 316, 1011-1014.	12.6	271
135	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
136	Fundamentally distinct outcomes of asteroid collisional evolution: Itokawa and Eros. Geophysical Research Letters, 2007, 34, .	4.0	12
137	Non-intrusive measurements of crater growth. Icarus, 2007, 188, 506-521.	2.5	38
138	An overview of the LIDAR observations of asteroid 25143 Itokawa. Advances in Space Research, 2007, 40, 187-192.	2.6	18
139	The Rubble-Pile Asteroid Itokawa as Observed by Hayabusa. Science, 2006, 312, 1330-1334.	12.6	761
140	The formation of fluidized ejecta on Mars by granular flows. Meteoritics and Planetary Science, 2006, 41, 1551-1569.	1.6	43
141	Developing space weathering on the asteroid 25143 Itokawa. Nature, 2006, 443, 56-58.	27.8	97
142	Touchdown of the Hayabusa Spacecraft at the Muses Sea on Itokawa. Science, 2006, 312, 1350-1353.	12.6	349
143	Mass and Local Topography Measurements of Itokawa by Hayabusa. Science, 2006, 312, 1344-1347.	12.6	213
144	Comparing landslides to fluidized crater ejecta on Mars. Journal of Geophysical Research, 2005, 110, .	3.3	53

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145	Aeolian sediment transport pathways and aerodynamics at troughs on Mars. Journal of Geophysical Research, 2004, 109, .	3.3	53
146	CONTOUR forward imager on the Comet Nucleus Tour mission. , 2004, , .		1
147	An empirical approach to studying debris flows: Implications for planetary modeling studies. Journal of Geophysical Research, 2002, 107, 9-1.	3.3	23
148	Rheologic inferences from high water marks of debris flows. Geophysical Research Letters, 2002, 29, 49-1-49-4.	4.0	7
149	Small-Scale Topography of 433 Eros from Laser Altimetry and Imaging. Icarus, 2002, 155, 51-74.	2.5	66
150	Laser Altimetry of Small-Scale Features on 433 Eros from NEAR-Shoemaker. Science, 2001, 292, 488-491.	12.6	38
151	Interactions between an impact generated ejecta curtain and an atmosphere. International Journal of Impact Engineering, 1999, 23, 51-62.	5.0	8
152	Giant Craters on Mathilde. Icarus, 1999, 140, 34-48.	2.5	33
153	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
154	Investigating the interactions between an atmosphere and an ejecta curtain: 2. Numerical experiments. Journal of Geophysical Research, 1999, 104, 27117-27131.	3.3	37
155	Lobateness of impact ejecta deposits from atmospheric interactions. Journal of Geophysical Research, 1998, 103, 25739-25756.	3.3	82
156	Sampling a planetary surface with a pyrotechnic rock chipper. , 0, , .		3
157	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