Patrick Michel

List of Publications by Year
in descending order

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209 papers	10,540 citations	26630 56 h-index	40979 93 g-index
247 all docs	247 docs citations	247 times ranked	3329 citing authors

#	Article	IF	Citations
1	Hayabusa2 arrives at the carbonaceous asteroid 162173 Ryuguâ€”A spinning topâ€“shaped rubble pile. Science, 2019, 364, 268-272.	12.6	410
2	Dynamical Lifetimes of Objects Injected into Asteroid Belt Resonances. Science, 1997, 277, 197-201.	12.6	399
3	Rotational breakup as the origin of small binary asteroids. Nature, 2008, 454, 188-191.	27.8	329
4	The geomorphology, color, and thermal properties of Ryugu: Implications for parent-body processes. Science, 2019, 364, 252.	12.6	313
5	Thermal fatigue as the origin of regolith on small asteroids. Nature, 2014, 508, 233-236.	27.8	280
6	Collisions and Gravitational Reaccumulation: Forming Asteroid Families and Satellites. Science, 2001, 294, 1696-1700.	12.6	257
7	Properties of rubble-pile asteroid (101955) Bennu from OSIRIS-REx imaging and thermal analysis. Nature Astronomy, 2019, 3, 341-351.	10.1	188
8	An artificial impact on the asteroid (162173) Ryugu formed a crater in the gravity-dominated regime. Science, 2020, 368, 67-71.	12.6	183
9	Shape of (101955) Bennu indicative of a rubble pile with internal stiffness. Nature Geoscience, 2019, 12, 247-252.	12.9	179
10	The OSIRISâ€REx target asteroid (101955) Bennu: Constraints on its physical, geological, and dynamical nature from astronomical observations. Meteoritics and Planetary Science, 2015, 50, 834-849.	1.6	168
11	AIDA DART asteroid deflection test: Planetary defense and science objectives. Planetary and Space Science, 2018, 157, 104-115.	1.7	162
12	Super-catastrophic disruption of asteroids at small perihelion distances. Nature, 2016, 530, 303-306.	27.8	161
13	Craters, boulders and regolith of (101955) Bennu indicative of an old and dynamic surface. Nature Geoscience, 2019, 12, 242-246.	12.9	161
14	Sample collection from asteroid (162173) Ryugu by Hayabusa2: Implications for surface evolution. Science, 2020, 368, 654-659.	12.6	158
15	Debiased orbit and absolute-magnitude distributions for near-Earth objects. Icarus, 2018, 312, 181-207.	2.5	156
16	An implementation of the soft-sphere discrete element method in a high-performance parallel gravity tree-code. Granular Matter, 2012, 14, 363-380.	2.2	132
17	The dynamic geophysical environment of (101955) Bennu based on OSIRIS-REx measurements. Nature Astronomy, 2019, 3, 352-361.	10.1	132
18	Origin and Evolution of Near-Earth Objects. , 2002, , 409-422.		132

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19	Episodes of particle ejection from the surface of the active asteroid (101955) Bennu. Science, 2019, 366, .	12.6	129
20	In search of the source of asteroid (101955) Bennu: Applications of the stochastic YORP model. Icarus, 2015, 247, 191-217.	2.5	125
21	On the Size Distribution of Asteroid Families: The Role of Geometry. Icarus, 1999, 141, 65-78.	2.5	124
22	Low thermal conductivity boulder with high porosity identified on C-type asteroid (162173) Ryugu. Nature Astronomy, 2019, 3, 971-976.	10.1	124
23	Disruption of fragmented parent bodies as the origin of asteroid families. Nature, 2003, 421, 608-611.	27.8	120
24	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
25	Numerical simulations of impacts involving porous bodies. Icarus, 2008, 198, 242-255.	2.5	115
26	Fragment properties at the catastrophic disruption threshold: The effect of the parent bodyâ€™s internal structure. Icarus, 2010, 207, 54-65.	2.5	114
27	Spin-up of rubble-pile asteroids: Disruption, satellite formation, and equilibrium shapes. Icarus, 2012, 220, 514-529.	2.5	114
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	Origin of Multikilometer Earth- and Mars-Crossing Asteroids: A Quantitative Simulation. , 1998, 281, 2022-2024.		106
31	Images from the surface of asteroid Ryugu show rocks similar to carbonaceous chondrite meteorites. Science, 2019, 365, 817-820.	12.6	99
32	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
33	Origin and history of ureilitic material in the solar system: The view from asteroidÂ2008 <scp>TC</scp>₃ and the Almahata Sitta meteorite. Meteoritics and Planetary Science, 2015, 50, 782-809.	1.6	92
34	The geophysical environment of Bennu. Icarus, 2016, 276, 116-140.	2.5	92
35	Formation of Asteroid Families by Catastrophic Disruption: Simulations with Fragmentation and Gravitational Reaccumulation. Icarus, 2002, 160, 10-23.	2.5	90
36	Asteroid Impact and Deflection Assessment mission. Acta Astronautica, 2015, 115, 262-269.	3.2	87

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37	Collisional formation of top-shaped asteroids and implications for the origins of Ryugu and Bennu. Nature Communications, 2020, 11, 2655.	12.8	87
38	Numerical simulations of asteroids modelled as gravitational aggregates with cohesion. Planetary and Space Science, 2009, 57, 183-192.	1.7	84
39	Variations in color and reflectance on the surface of asteroid (101955) Bennu. Science, 2020, 370, .	12.6	84
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	Hypervelocity impacts on asteroids and momentum transfer I. Numerical simulations using porous targets. Icarus, 2014, 229, 247-253.	2.5	78
42	Pebbles and sand on asteroid (162173) Ryugu: In situ observation and particles returned to Earth. Science, 2022, 375, 1011-1016.	12.6	78
43	The Location of Linear Secular Resonances for Semimajor Axes Smaller Than 2 AU. Icarus, 1997, 128, 230-240.	2.5	77
44	Itokawa's cratering record as observed by Hayabusa: Implications for its age and collisional history. Icarus, 2009, 200, 503-513.	2.5	74
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	MarcoPolo-R near earth asteroid sample return mission. Experimental Astronomy, 2012, 33, 645-684.	3.7	72
47	Numerical simulations of impacts involving porous bodies. Icarus, 2009, 201, 802-813.	2.5	71
48	Rotational Failure of Rubble-pile Bodies: Influences of Shear and Cohesive Strengths. Astrophysical Journal, 2018, 857, 15.	4.5	70
49	Numerical predictions of surface effects during the 2029 close approach of Asteroid 99942 Apophis. Icarus, 2014, 242, 82-96.	2.5	68
50	Tidal disruptions. Icarus, 2008, 193, 283-301.	2.5	66
51	Tidal disruptions: A continuum theory for solid bodies. Icarus, 2006, 183, 331-348.	2.5	65
52	Lightcurve, Color and Phase Function Photometry of the OSIRIS-REx Target Asteroid (101955) Bennu. Icarus, 2013, 226, 663-670.	2.5	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	The Velocityâ€“Size Relationship for Members of Asteroid Families and Implications for the Physics of Catastrophic Collisions. Icarus, 1999, 141, 79-95.	2.5	61

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55	Catastrophic disruption of pre-shattered parent bodies. Icarus, 2004, 168, 420-432.	2.5	61
56	Numerical simulations of granular dynamics: I. Hard-sphere discrete element method and tests. Icarus, 2011, 212, 427-437.	2.5	61
57	Collision and gravitational reaccumulation: Possible formation mechanism of the asteroid Itokawa. Astronomy and Astrophysics, 2013, 554, L1.	5.1	61
58	Catastrophic disruptions as the origin of bilobate comets. Nature Astronomy, 2018, 2, 379-382.	10.1	60
59	Granular Convection in Microgravity. Physical Review Letters, 2013, 110, 018307.	7.8	58
60	Hemispherical differences in the shape and topography of asteroid (101955) Bennu. Science Advances, 2020, 6, .	10.3	57
61	Contact Motion on Surface of Asteroid. Journal of Spacecraft and Rockets, 2014, 51, 1857-1871.	1.9	56
62	The Population of Mars-Crossers: Classification and Dynamical Evolution. Icarus, 2000, 145, 332-347.	2.5	54
63	Direct observations of asteroid interior and regolith structure: Science measurement requirements. Advances in Space Research, 2018, 62, 2141-2162.	2.6	54
64	Probable asteroidal origin of the Tunguska Cosmic Body. Astronomy and Astrophysics, 2001, 377, 1081-1097.	5.1	53
65	THE ORIGIN OF ASTEROID 162173 (1999 JU₃). Astronomical Journal, 2013, 146, 26.	4.7	53
66	Catastrophic disruption of asteroids and family formation: a review of numerical simulations including both fragmentation and gravitational reaccumulations. Planetary and Space Science, 2004, 52, 1109-1117.	1.7	51
67	Martian moons exploration MMX: sample return mission to Phobos elucidating formation processes of habitable planets. Earth, Planets and Space, 2022, 74, .	2.5	51
68	Heterogeneous mass distribution of the rubble-pile asteroid (101955) Bennu. Science Advances, 2020, 6, .	10.3	50
69	VLT/SPHERE imaging survey of the largest main-belt asteroids: Final results and synthesis. Astronomy and Astrophysics, 2021, 654, A56.	5.1	50
70	1620 Geographos and 433 Eros: Shaped by Planetary Tides?. Astronomical Journal, 1999, 117, 1921-1928.	4.7	48
71	(16) Psyche: A mesosiderite-like asteroid?. Astronomy and Astrophysics, 2018, 619, L3.	5.1	46
72	The orbital evolution of the asteroid Eros and implications for collision with the Earth. Nature, 1996, 380, 689-691.	27.8	45

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73	The Brazil nut effect and its application to asteroids. Monthly Notices of the Royal Astronomical Society, 2014, 443, 3368-3380.	4.4	44
74	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
75	Collisional history of Ryuguâ€™s parent body from bright surface boulders. Nature Astronomy, 2021, 5, 39-45.	10.1	42
76	Estimated Abundance of Atens and Asteroids Evolving on Orbits between Earth and Sun. Icarus, 2000, 143, 421-424.	2.5	40
77	Weibull parameters ofYakunobasalt targets used in documented high-velocity impact experiments. Journal of Geophysical Research, 2007, 112, .	3.3	40
78	Asteroid Ryugu before the Hayabusa2 encounter. Progress in Earth and Planetary Science, 2018, 5, .	3.0	39
79	A basin-free spherical shape as an outcome of a giant impact on asteroid Hygiea. Nature Astronomy, 2020, 4, 136-141.	10.1	38
80	Effects of Linear Secular Resonances in the Region of Semimajor Axes Smaller Than 2 AU. Icarus, 1997, 129, 348-366.	2.5	37
81	Orbital and thermal evolutions of four potential targets for a sample return space mission to a primitive near-Earth asteroid. Icarus, 2010, 209, 520-534.	2.5	37
82	Ejecta cloud from the AIDA space project kinetic impact on the secondary of a binary asteroid: I. mechanical environment and dynamical model. Icarus, 2017, 282, 313-325.	2.5	37
83	Dynamics of Eros. Astronomical Journal, 1998, 116, 2023-2031.	4.7	37
84	TEMPERATURE HISTORY AND DYNAMICAL EVOLUTION OF (101955) 1999 RQ 36: A POTENTIAL TARGET FOR SAMPLE RETURN FROM A PRIMITIVE ASTEROID. Astrophysical Journal Letters, 2011, 728, L42.	8.3	36
85	MarcoPolo-R: Near-Earth Asteroid sample return mission selected for the assessment study phase of the ESA program cosmic vision. Acta Astronautica, 2014, 93, 530-538.	3.2	36
86	Numerical simulations of the contact between the lander MASCOT and a regolith-covered surface. Advances in Space Research, 2018, 62, 2099-2124.	2.6	34
87	Interpreting the Cratering Histories of Bennu, Ryugu, and Other Spacecraft-explored Asteroids. Astronomical Journal, 2020, 160, 14.	4.7	34
88	The European Union funded NEOShield project: A global approach to near-Earth object impact threat mitigation. Acta Astronautica, 2013, 90, 80-84.	3.2	33
89	Particle Size-Frequency Distributions of the OSIRIS-REx Candidate Sample Sites on Asteroid (101955) Bennu. Remote Sensing, 2021, 13, 1315.	4.0	33
90	Creep stability of the DART/Hera mission target 65803 Didymos: II. The role of cohesion. Icarus, 2021, 362, 114433.	2.5	33

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91	The excited spin state of Dimorphos resulting from the DART impact. Icarus, 2021, 370, 114624.	2.5	33
92	An extended field of crater-shaped structures in the Gilf Kebir region, Egypt: Observations and hypotheses about their origin. Journal of African Earth Sciences, 2006, 46, 281-299.	2.0	32
93	Numerical simulations of oscillation-driven regolith motion: Brazil-nut effect. Monthly Notices of the Royal Astronomical Society, 2017, 464, 2866-2881.	4.4	32
94	Benchmarking impact hydrocodes in the strength regime: Implications for modeling deflection by a kinetic impactor. Icarus, 2020, 338, 113446.	2.5	32
95	The shallow magnitude distribution of asteroid families. Icarus, 2003, 162, 328-336.	2.5	31
96	Low-speed impact simulations into regolith in support of asteroid sampling mechanism design I: Comparison with 1-g experiments. Planetary and Space Science, 2014, 103, 174-183.	1.7	31
97	Numerical modeling of lander interaction with a low-gravity asteroid regolith surface. Astronomy and Astrophysics, 2018, 615, A41.	5.1	31
98	Near-zero cohesion and loose packing of Bennuâ€™s near subsurface revealed by spacecraft contact. Science Advances, 2022, 8, .	10.3	31
99	MARCO POLO: near earth object sample return mission. Experimental Astronomy, 2009, 23, 785-808.	3.7	30
100	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
101	Meteoroid Impacts as a Source of Bennu's Particle Ejection Events. Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006282.	3.6	30
102	The Dynamical Complexity of Surface Mass Shedding from a Top-shaped Asteroid Near the Critical Spin Limit. Astronomical Journal, 2018, 156, 59.	4.7	29
103	The impact crater at the origin of the Julia family detected with VLT/SPHERE?. Astronomy and Astrophysics, 2018, 618, A154.	5.1	29
104	Debiased albedo distribution for Near Earth Objects. Icarus, 2020, 340, 113631.	2.5	29
105	Numerically simulating impact disruptions of cohesive glass bead agglomerates using the soft-sphere discrete element method. Icarus, 2013, 226, 67-76.	2.5	28
106	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
107	Granular shear flow in varying gravitational environments. Granular Matter, 2013, 15, 129-137.	2.2	27
108	Ejecta cloud from the AIDA space project kinetic impact on the secondary of a binary asteroid: II. Fates and evolutionary dependencies. Icarus, 2018, 312, 128-144.	2.5	27

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109	Macroporosity and Grain Density of Rubble Pile Asteroid (162173) Ryugu. Journal of Geophysical Research E: Planets, 2020, 125, e2020JE006519.	3.6	27
110	Reconstructing the formation history of top-shaped asteroids from the surface boulder distribution. Nature Astronomy, 2021, 5, 134-138.	10.1	27
111	The violent collisional history of aqueously evolved (2) Pallas. Nature Astronomy, 2020, 4, 569-576.	10.1	26
112	Numerical simulations of collisional disruption of rotating gravitational aggregates: Dependence on material properties. Planetary and Space Science, 2015, 107, 29-35.	1.7	25
113	Homogeneous internal structure of CM-like asteroid (41) Daphne. Astronomy and Astrophysics, 2019, 623, A132.	5.1	25
114	Mechanical properties of particles from the surface of asteroid 25143 Itokawa. Astronomy and Astrophysics, 2019, 629, A119.	5.1	25
115	Asteroid (16) Psycheâ€™s primordial shape: A possible Jacobi ellipsoid. Astronomy and Astrophysics, 2020, 638, L15.	5.1	25
116	Tidal distortion and disruption of rubble-pile bodies revisited. Astronomy and Astrophysics, 2020, 640, A102.	5.1	25
117	A benchmarking and sensitivity study of the full two-body gravitational dynamics of the DART mission target, binary asteroid 65803 Didymos. Icarus, 2020, 349, 113849.	2.5	24
118	OSIRIS-REx spectral analysis of (101955) Bennu by multivariate statistics. Astronomy and Astrophysics, 2020, 637, L4.	5.1	23
119	Predictions for the Dynamical States of the Didymos System before and after the Planned DART Impact. Planetary Science Journal, 2022, 3, 157.	3.6	23
120	Science operation plan of Phobos and Deimos from the MMX spacecraft. Earth, Planets and Space, 2021, 73, .	2.5	22
121	Fragment properties from large-scale asteroid collisions: I: Results from SPH/N-body simulations using porous parent bodies and improved material models. Icarus, 2019, 317, 215-228.	2.5	21
122	Hypervelocity impacts as a source of deceiving surface signatures on iron-rich asteroids. Science Advances, 2019, 5, eaav3971.	10.3	21
123	Assessing possible mutual orbit period change by shape deformation of Didymos after a kinetic impact in the NASA-led Double Asteroid Redirection Test. Advances in Space Research, 2019, 63, 2515-2534.	2.6	21
124	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
125	High- and low-velocity impact experiments on porous sintered glass bead targets of different compressive strengths: Outcome sensitivity and scaling. Icarus, 2010, 205, 702-711.	2.5	20
126	Deployment of a lander on the binary asteroid (175706) 1996 FG3, potential target of the european MarcoPolo-R sample return mission. Acta Astronautica, 2013, 89, 60-70.	3.2	20

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127	Closing the gap between Earth-based and interplanetary mission observations: Vesta seen by VLT/SPHERE. Astronomy and Astrophysics, 2019, 623, A6.	5.1	20
128	The Morphometry of Impact Craters on Bennu. Geophysical Research Letters, 2020, 47, e2020GL089672.	4.0	20
129	(216) Kleopatra, a low density critically rotating M-type asteroid. Astronomy and Astrophysics, 2021, 653, A57.	5.1	20
130	The MMX rover: performing in situ surface investigations on Phobos. Earth, Planets and Space, 2022, 74, .	2.5	20
131	Crater population on asteroid (101955) Bennu indicates impact armouring and a young surface. Nature Geoscience, 2022, 15, 440-446.	12.9	20
132	Low surface strength of the asteroid Bennu inferred from impact ejecta deposit. Nature Geoscience, 2022, 15, 447-452.	12.9	19
133	Origin and dynamics of Near Earth Objects. Comptes Rendus Physique, 2005, 6, 291-301.	0.9	18
134	The NEO (175706) 1996 FG3 in the 2â€“4Î¼m spectral region: Evidence for an aqueously altered surface. Icarus, 2013, 223, 493-498.	2.5	18
135	Earth impact probability of the Asteroid (25143) Itokawa to be sampled by the spacecraft Hayabusa. Icarus, 2005, 179, 291-296.	2.5	17
136	The Asteroid Veritas: An intruder in a family named after it?. Icarus, 2011, 211, 535-545.	2.5	17
137	Shapes, structures, and evolution of small bodies. Astrodynamics, 2021, 5, 293-329.	2.4	17
138	Review of the population of impactors and the impact cratering rate in the inner solar system. Meteoritics and Planetary Science, 2007, 42, 1861-1869.	1.6	16
139	Simulating regoliths in microgravity. Monthly Notices of the Royal Astronomical Society, 2013, 433, 506-514.	4.4	16
140	ROTATION-DEPENDENT CATASTROPHIC DISRUPTION OF GRAVITATIONAL AGGREGATES. Astrophysical Journal, 2014, 789, 158.	4.5	16
141	Selective sampling during catastrophic disruption: Mapping the location of reaccumulated fragments in the original parent body. Planetary and Space Science, 2015, 107, 24-28.	1.7	16
142	Nanoindenting the Chelyabinsk Meteorite to Learn about Impact Deflection Effects in asteroids. Astrophysical Journal, 2017, 835, 157.	4.5	16
143	Constraints on the perturbed mutual motion in Didymos due to impact-induced deformation of its primary after the DART impact. Monthly Notices of the Royal Astronomical Society, 2017, 472, 1641-1648.	4.4	16
144	Binary asteroid (31) Euphrosyne: ice-rich and nearly spherical. Astronomy and Astrophysics, 2020, 641, A80.	5.1	16

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145	Rotational states and shapes of Ryugu and Bennu: Implications for interior structure and strength. Planetary and Space Science, 2021, 204, 105268.	1.7	15
146	Surface environment of Phobos and Phobos simulant UTPS. Earth, Planets and Space, 2021, 73, .	2.5	15
147	NASAâ€™s Double Asteroid Redirection Test (DART): Mutual Orbital Period Change Due to Reshaping in the Near-Earth Binary Asteroid System (65803) Didymos. Planetary Science Journal, 2022, 3, 148.	3.6	15
148	Dynamical origin of the asteroid (25143) Itokawa: the target of the sample-return Hayabusa space mission. Astronomy and Astrophysics, 2006, 449, 817-820.	5.1	14
149	Comment on â€œParent body depthâ€pressureâ€temperature relationships and the style of the ureilite anatexisâ€•by P. H. Warren (MAPS 47:209â€“227). Meteoritics and Planetary Science, 2013, 48, 1096-1106.	1.6	14
150	(704) Interamnia: a transitional object between a dwarf planet and a typical irregular-shaped minor body. Astronomy and Astrophysics, 2020, 633, A65.	5.1	14
151	The Formation of Terraces on Asteroid (101955) Bennu. Journal of Geophysical Research E: Planets, 2022, 127, .	3.6	14
152	Libration-induced Orbit Period Variations Following the DART Impact. Planetary Science Journal, 2021, 2, 242.	3.6	14
153	A finite element method for computational full two-body problem: I. The mutual potential and derivatives over bilinear tetrahedron elements. Celestial Mechanics and Dynamical Astronomy, 2019, 131, 1.	1.4	13
154	Validating N-body code chrono for granular DEM simulations in reduced-gravity environments. Monthly Notices of the Royal Astronomical Society, 2020, 498, 1062-1079.	4.4	13
155	Collisional heating and compaction of small bodies: Constraints for their origin and evolution. Icarus, 2020, 350, 113867.	2.5	13
156	Physical properties of Near-Earth Objects that inform mitigation. Acta Astronautica, 2013, 90, 6-13.	3.2	12
157	The shape of (7) Iris as evidence of an ancient large impact?. Astronomy and Astrophysics, 2019, 624, A121.	5.1	12
158	Network of thermal cracks in meteorites due to temperature variations: new experimental evidence and implications for asteroid surfaces. Monthly Notices of the Royal Astronomical Society, 2020, 500, 1905-1920.	4.4	12
159	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
160	Collisional Formation and Modeling of Asteroid Families. , 2015, , .		11
161	Dynamical Evolution of the Didymosâ^'Dimorphos Binary Asteroid as Rubble Piles following the DART Impact. Planetary Science Journal, 2022, 3, 158.	3.6	11
162	Small-body deflection techniques using spacecraft: Techniques in simulating the fate of ejecta. Advances in Space Research, 2016, 57, 1832-1846.	2.6	10

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163	Numerical modeling of lander interaction with a low-gravity asteroid regolith surface. Astronomy and Astrophysics, 2021, 648, A56.	5.1	10
164	Geologic Context of the OSIRIS-REx Sample Site from High-resolution Topography and Imaging. Planetary Science Journal, 2022, 3, 75.	3.6	10
165	Formation and Physical Properties of Asteroids. Elements, 2014, 10, 19-24.	0.5	9
166	Search for primitive matter in the Solar System. Icarus, 2017, 282, 375-379.	2.5	9
167	Structural analysis of rubble-pile asteroids applied to collisional evolution. Astrodynamics, 2017, 1, 57-69.	2.4	9
168	Numerical simulations of granular dynamics II: Particle dynamics in a shaken granular material. Icarus, 2012, 219, 321-335.	2.5	8
169	The influence of gravity on granular impacts. Astronomy and Astrophysics, 2021, 656, A97.	5.1	8
170	Numerical modelling of medium-speed impacts on a granular surface in a low-gravity environment application to Hayabusa2 sampling mechanism. Monthly Notices of the Royal Astronomical Society, 2020, 491, 153-177.	4.4	7
171	Dynamical behaviour of Near-Earth asteroids in the terrestrial planet region : the role of secular resonances. Planetary and Space Science, 1998, 46, 905-910.	1.7	6
172	Using a geometrical algorithm to provide N-body initial conditions for the gravitational phase of asteroid family formation. Monthly Notices of the Royal Astronomical Society, 2019, 485, 697-707.	4.4	6
173	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
174	NEOSHIELD - A Global Approach to Near-earth ObjectNEAR-EARTH OBJECT Impact ThreatIMPACT THREAT Mitigation. , 2015, , 763-790.		6
175	Resurfacing processes constrained by crater distribution on Ryugu. Icarus, 2022, 377, 114911.	2.5	6
176	Secular Dynamics of Asteroids in the Inner Solar System. Celestial Mechanics and Dynamical Astronomy, 1997, 69, 133-147.	1.4	5
177	The formation of the Baptistina family by catastrophic disruption: Porous versus nonâ€porous parent body. Meteoritics and Planetary Science, 2009, 44, 1877-1887.	1.6	5
178	The NEOTÏ‰IST mission (Near-Earth Object Transfer of angular momentum spin test). Acta Astronautica, 2016, 127, 103-111.	3.2	5
179	The expansion of debris flow shed from the primary of 65803 Didymos. Monthly Notices of the Royal Astronomical Society, 2019, 484, 1057-1071.	4.4	5
180	High-resolution observations of bright boulders on asteroid Ryugu: 2. Spectral properties. Icarus, 2021, 369, 114591.	2.5	5

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181	Asteroids and Their Collisional Disruption. Lecture Notes in Physics, 2008, , 1-27.	0.7	5
182	The influence of gravity on granular impacts. Astronomy and Astrophysics, 2022, 658, A118.	5.1	5
183	Are hypervelocity impacts able to produce chondrule-like ejecta?. Planetary and Space Science, 2019, 177, 104684.	1.7	4
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