## Patrick Michel

List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/2818272/publications.pdf

Version: 2024-02-01

209 papers

10,540 citations

<sup>26630</sup>
56
h-index

93 g-index

247 all docs

247 docs citations

times ranked

247

3329 citing authors

#	Article	IF	Citations
1	The influence of gravity on granular impacts. Astronomy and Astrophysics, 2022, 658, A118.	5.1	5
2	Martian moons exploration MMX: sample return mission to Phobos elucidating formation processes of habitable planets. Earth, Planets and Space, 2022, 74, .	2.5	51
3	Resurfacing processes constrained by crater distribution on Ryugu. Icarus, 2022, 377, 114911.	2.5	6
4	The MMX rover: performing in situ surface investigations on Phobos. Earth, Planets and Space, 2022, 74, .	2.5	20
5	HERA Mission LIDAR Mechanical and Optical Design. IOP Conference Series: Materials Science and Engineering, 2022, 1226, 012094.	0.6	1
6	Pebbles and sand on asteroid (162173) Ryugu: In situ observation and particles returned to Earth. Science, 2022, 375, 1011-1016.	12.6	78
7	Geologic Context of the OSIRIS-REx Sample Site from High-resolution Topography and Imaging. Planetary Science Journal, 2022, 3, 75.	3.6	10
8	Crater population on asteroid (101955) Bennu indicates impact armouring and a young surface. Nature Geoscience, 2022, 15, 440-446.	12.9	20
9	The Formation of Terraces on Asteroid (101955) Bennu. Journal of Geophysical Research E: Planets, 2022, 127, .	3.6	14
10	Low surface strength of the asteroid Bennu inferred from impact ejecta deposit. Nature Geoscience, 2022, 15, 447-452.	12.9	19
11	Apophis Planetary Defense Campaign. Planetary Science Journal, 2022, 3, 123.	3.6	4
12	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
13	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
14	Near-zero cohesion and loose packing of Bennu's near subsurface revealed by spacecraft contact. Science Advances, 2022, 8, .	10.3	31
15	Dynamical Evolution of the Didymosâ^'Dimorphos Binary Asteroid as Rubble Piles following the DART Impact. Planetary Science Journal, 2022, 3, 158.	3.6	11
16	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
17	NASA'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
18	Reconstructing the formation history of top-shaped asteroids from the surface boulder distribution. Nature Astronomy, 2021, 5, 134-138.	10.1	27

#	Article	IF	CITATIONS
19	Collisional history of Ryugu's parent body from bright surface boulders. Nature Astronomy, 2021, 5, 39-45.	10.1	42
20	Particle Size-Frequency Distributions of the OSIRIS-REx Candidate Sample Sites on Asteroid (101955) Bennu. Remote Sensing, 2021, 13, 1315.	4.0	33
21	Numerical modeling of lander interaction with a low-gravity asteroid regolith surface. Astronomy and Astrophysics, 2021, 648, A56.	5.1	10
22	Creep stability of the DART/Hera mission target 65803 Didymos: II. The role of cohesion. Icarus, 2021, 362, 114433.	2.5	33
23	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
24	The Double Asteroid Redirection Test (DART): Planetary Defense Investigations and Requirements. Planetary Science Journal, 2021, 2, 173.	3.6	110
25	Rotational states and shapes of Ryugu and Bennu: Implications for interior structure and strength. Planetary and Space Science, 2021, 204, 105268.	1.7	15
26	(216) Kleopatra, a low density critically rotating M-type asteroid. Astronomy and Astrophysics, 2021, 653, A57.	5.1	20
27	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
28	VLT/SPHERE imaging survey of the largest main-belt asteroids: Final results and synthesis. Astronomy and Astrophysics, 2021, 654, A56.	5.1	50
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	The excited spin state of Dimorphos resulting from the DART impact. Icarus, 2021, 370, 114624.	2.5	33
32	The influence of gravity on granular impacts. Astronomy and Astrophysics, 2021, 656, A97.	5.1	8
33	Surface environment of Phobos and Phobos simulant UTPS. Earth, Planets and Space, 2021, 73, .	2.5	15
34	Science operation plan of Phobos and Deimos from the MMX spacecraft. Earth, Planets and Space, 2021, 73, .	2.5	22
35	Shapes, structures, and evolution of small bodies. Astrodynamics, 2021, 5, 293-329.	2.4	17
36	Libration-induced Orbit Period Variations Following the DART Impact. Planetary Science Journal, 2021, 2, 242.	3.6	14

#	Article	lF	CITATIONS
37	Benchmarking impact hydrocodes in the strength regime: Implications for modeling deflection by a kinetic impactor. Icarus, 2020, 338, 113446.	2.5	32
38	Simulations of high-velocity impacts on metal in preparation for the Psyche mission. Icarus, 2020, 338, 113505.	2.5	3
39	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
40	A basin-free spherical shape as an outcome of a giant impact on asteroid Hygiea. Nature Astronomy, 2020, 4, 136-141.	10.1	38
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	Variations in color and reflectance on the surface of asteroid (101955) Bennu. Science, 2020, 370, .	12.6	84
44	Asteroid (16) Psyche's primordial shape: A possible Jacobi ellipsoid. Astronomy and Astrophysics, 2020, 638, L15.	5.1	25
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	Macroporosity and Grain Density of Rubble Pile Asteroid (162173) Ryugu. Journal of Geophysical Research E: Planets, 2020, 125, e2020JE006519.	3.6	27
48	Bennu's near-Earth lifetime of 1.75 million years inferred from craters on its boulders. Nature, 2020, 587, 205-209.	27.8	62
49	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
50	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
51	Meteoroid Impacts as a Source of Bennu's Particle Ejection Events. Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006282.	<b>3.</b> 6	30
52	Sample collection from asteroid (162173) Ryugu by Hayabusa2: Implications for surface evolution. Science, 2020, 368, 654-659.	12.6	158
53	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
54	Collisional formation of top-shaped asteroids and implications for the origins of Ryugu and Bennu. Nature Communications, 2020, 11, 2655.	12.8	87

#	Article	IF	CITATIONS
55	Interpreting the Cratering Histories of Bennu, Ryugu, and Other Spacecraft-explored Asteroids. Astronomical Journal, 2020, 160, 14.	4.7	34
56	Collisional heating and compaction of small bodies: Constraints for their origin and evolution. Icarus, 2020, 350, 113867.	2.5	13
57	OSIRIS-REx spectral analysis of (101955) Bennu by multivariate statistics. Astronomy and Astrophysics, 2020, 637, L4.	5.1	23
58	An artificial impact on the asteroid (162173) Ryugu formed a crater in the gravity-dominated regime. Science, 2020, 368, 67-71.	12.6	183
59	The violent collisional history of aqueously evolved (2) Pallas. Nature Astronomy, 2020, 4, 569-576.	10.1	26
60	(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
61	Debiased albedo distribution for Near Earth Objects. Icarus, 2020, 340, 113631.	2.5	29
62	Tidal distortion and disruption of rubble-pile bodies revisited. Astronomy and Astrophysics, 2020, 640, A102.	5.1	25
63	Binary asteroid (31) Euphrosyne: ice-rich and nearly spherical. Astronomy and Astrophysics, 2020, 641, A80.	5.1	16
64	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
65	Low thermal conductivity boulder with high porosity identified on C-type asteroid (162173) Ryugu. Nature Astronomy, 2019, 3, 971-976.	10.1	124
66	Are hypervelocity impacts able to produce chondrule-like ejecta?. Planetary and Space Science, 2019, 177, 104684.	1.7	4
67	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
68	Images from the surface of asteroid Ryugu show rocks similar to carbonaceous chondrite meteorites. Science, 2019, 365, 817-820.	12.6	99
69	Homogeneous internal structure of CM-like asteroid (41) Daphne. Astronomy and Astrophysics, 2019, 623, A132.	5.1	25
70	The shape of (7) Iris as evidence of an ancient large impact?. Astronomy and Astrophysics, 2019, 624, A121.	5.1	12
71	The dynamic geophysical environment of (101955) Bennu based on OSIRIS-REx measurements. Nature Astronomy, 2019, 3, 352-361.	10.1	132
72	Properties of rubble-pile asteroid (101955) Bennu from OSIRIS-REx imaging and thermal analysis. Nature Astronomy, 2019, 3, 341-351.	10.1	188

#	Article	IF	Citations
73	Craters, boulders and regolith of (101955) Bennu indicative of an old and dynamic surface. Nature Geoscience, 2019, 12, 242-246.	12.9	161
74	Shape of (101955) Bennu indicative of a rubble pile with internal stiffness. Nature Geoscience, 2019, 12, 247-252.	12.9	179
75	Hayabusa2 arrives at the carbonaceous asteroid 162173 Ryuguâ€"A spinning topâ€"shaped rubble pile. Science, 2019, 364, 268-272.	12.6	410
76	The geomorphology, color, and thermal properties of Ryugu: Implications for parent-body processes. Science, 2019, 364, 252.	12.6	313
77	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
78	Closing the gap between Earth-based and interplanetary mission observations: Vesta seen by VLT/SPHERE. Astronomy and Astrophysics, 2019, 623, A6.	5.1	20
79	Using a geometrical algorithm to provide <i>N</i> 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
80	Mechanical properties of particles from the surface of asteroid 25143 Itokawa. Astronomy and Astrophysics, 2019, 629, A119.	5.1	25
81	Hypervelocity impacts as a source of deceiving surface signatures on iron-rich asteroids. Science Advances, 2019, 5, eaav3971.	10.3	21
82	Episodes of particle ejection from the surface of the active asteroid (101955) Bennu. Science, 2019, 366, .	12.6	129
83	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
84	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
85	Catastrophic disruptions as the origin of bilobate comets. Nature Astronomy, 2018, 2, 379-382.	10.1	60
86	Debiased orbit and absolute-magnitude distributions for near-Earth objects. Icarus, 2018, 312, 181-207.	2.5	156
87	AIDA DART asteroid deflection test: Planetary defense and science objectives. Planetary and Space Science, 2018, 157, 104-115.	1.7	162
88	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
89	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

#	Article	IF	Citations
91	Asteroid Ryugu before the Hayabusa2 encounter. Progress in Earth and Planetary Science, 2018, 5, .	3.0	39
92	(16) Psyche: A mesosiderite-like asteroid?. Astronomy and Astrophysics, 2018, 619, L3.	5.1	46
93	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
94	Numerical modeling of lander interaction with a low-gravity asteroid regolith surface. Astronomy and Astrophysics, 2018, 615, A41.	5.1	31
95	The impact crater at the origin of the Julia family detected with VLT/SPHERE?. Astronomy and Astrophysics, 2018, 618, A154.	5.1	29
96	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
97	Rotational Failure of Rubble-pile Bodies: Influences of Shear and Cohesive Strengths. Astrophysical Journal, 2018, 857, 15.	4.5	70
98	Impactâ€induced chemical fractionation as inferred from hypervelocity impact experiments with silicate projectiles and metallic targets. Meteoritics and Planetary Science, 2018, 53, 2306-2326.	1.6	3
99	Nanoindenting the Chelyabinsk Meteorite to Learn about Impact Deflection Effects in asteroids. Astrophysical Journal, 2017, 835, 157.	4.5	16
100	Creep stability of the proposed AIDA mission target 65803 Didymos: I. Discrete cohesionless granular physics model. Icarus, 2017, 294, 98-123.	2.5	74
101	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
102	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
103	Numerical simulations of oscillation-driven regolith motion: Brazil-nut effect. Monthly Notices of the Royal Astronomical Society, 2017, 464, 2866-2881.	4.4	32
104	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
105	Search for primitive matter in the Solar System. Icarus, 2017, 282, 375-379.	2.5	9
106	Structural analysis of rubble-pile asteroids applied to collisional evolution. Astrodynamics, 2017, 1, 57-69.	2.4	9
107	Science case for the Asteroid Impact Mission (AIM): A component of the Asteroid Impact & Emp; Deflection Assessment (AIDA) mission. Advances in Space Research, 2016, 57, 2529-2547.	2.6	95
108	The geophysical environment of Bennu. Icarus, 2016, 276, 116-140.	2.5	92

#	Article	IF	CITATIONS
109	Small-body deflection techniques using spacecraft: Techniques in simulating the fate of ejecta. Advances in Space Research, 2016, 57, 1832-1846.	2.6	10
110	The NEOTωIST mission (Near-Earth Object Transfer of angular momentum spin test). Acta Astronautica, 2016, 127, 103-111.	3.2	5
111	Super-catastrophic disruption of asteroids at small perihelion distances. Nature, 2016, 530, 303-306.	27.8	161
112	Asteroid Impact & Deflection Assessment mission: Kinetic impactor. Planetary and Space Science, 2016, 121, 27-35.	1.7	110
113	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., 2016,, 187-212.		0
114	Dealing with uncertainties in asteroid deflection demonstration missions: NEOTωIST. Proceedings of the International Astronomical Union, 2015, 10, 231-238.	0.0	2
115	Numerical simulations of collisional disruption of rotating gravitational aggregates: Dependence on material properties. Planetary and Space Science, 2015, 107, 29-35.	1.7	25
116	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
117	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
118	Origin and history of ureilitic material in the solar system: The view from asteroidÂ2008 <scp>TC</scp> <sub>3</sub> and the Almahata Sitta meteorite. Meteoritics and Planetary Science, 2015, 50, 782-809.	1.6	92
119	Asteroid Impact and Deflection Assessment mission. Acta Astronautica, 2015, 115, 262-269.	3.2	87
120	In search of the source of asteroid (101955) Bennu: Applications of the stochastic YORP model. Icarus, 2015, 247, 191-217.	2.5	125
121	NEOSHIELD - A Global Approach to Near-earth ObjectNEAR-EARTH OBJECT Impact ThreatIMPACT THREAT Mitigation. , 2015, , 763-790.		6
122	Collisional Formation and Modeling of Asteroid Families. , 2015, , .		11
123	Formation and Physical Properties of Asteroids. Elements, 2014, 10, 19-24.	0.5	9
124	ROTATION-DEPENDENT CATASTROPHIC DISRUPTION OF GRAVITATIONAL AGGREGATES. Astrophysical Journal, 2014, 789, 158.	4.5	16
125	The Brazil nut effect and its application to asteroids. Monthly Notices of the Royal Astronomical Society, 2014, 443, 3368-3380.	4.4	44
126	Thermal fatigue as the origin of regolith on small asteroids. Nature, 2014, 508, 233-236.	27.8	280

#	Article	IF	CITATIONS
127	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
128	Contact Motion on Surface of Asteroid. Journal of Spacecraft and Rockets, 2014, 51, 1857-1871.	1.9	56
129	Numerical predictions of surface effects during the 2029 close approach of Asteroid 99942 Apophis. lcarus, 2014, 242, 82-96.	2.5	68
130	Hypervelocity impacts on asteroids and momentum transfer I. Numerical simulations using porous targets. Icarus, 2014, 229, 247-253.	2.5	78
131	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
132	Neoshield – A Global Approach to Near-Earth Object Impact Threat Mitigation. , 2014, , 1-22.		0
133	Neoshield – A Global Approach to Mitigation. , 2014, , 1-22.		0
134	Numerically simulating impact disruptions of cohesive glass bead agglomerates using the soft-sphere discrete element method. Icarus, 2013, 226, 67-76.	2.5	28
135	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
136	Granular Convection in Microgravity. Physical Review Letters, 2013, 110, 018307.	7.8	58
137	Lightcurve, Color and Phase Function Photometry of the OSIRIS-REx Target Asteroid (101955) Bennu. Icarus, 2013, 226, 663-670.	2.5	63
138	Physical properties of Near-Earth Objects that inform mitigation. Acta Astronautica, 2013, 90, 6-13.	3.2	12
139	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
140	The NEO (175706) 1996 FG3 in the 2–4μm spectral region: Evidence for an aqueously altered surface. Icarus, 2013, 223, 493-498.	2.5	18
141	Granular shear flow in varying gravitational environments. Granular Matter, 2013, 15, 129-137.	2.2	27
142	Simulating regoliths in microgravity. Monthly Notices of the Royal Astronomical Society, 2013, 433, 506-514.	4.4	16
143	THE ORIGIN OF ASTEROID 162173 (1999 JU <sub>3</sub> ). Astronomical Journal, 2013, 146, 26.	4.7	53
144	Comment on "Parent body depthâ€pressureâ€temperature relationships and the style of the ureilite anatexis†by P. H. Warren (MAPS 47:209–227). Meteoritics and Planetary Science, 2013, 48, 1096-1106.	1.6	14

#	Article	IF	Citations
145	Collision and gravitational reaccumulation: Possible formation mechanism of the asteroid Itokawa. Astronomy and Astrophysics, 2013, 554, L1.	5.1	61
146	Temperature shocks at the origin of regolith on asteroids. Proceedings of the International Astronomical Union, 2012, 10, 162-162.	0.0	0
147	<i>MarcoPolo-R</i> : Near Earth Asteroid Sample Return Mission candidate as ESA-M3 class mission. Proceedings of the International Astronomical Union, 2012, 10, 163-163.	0.0	0
148	Probing the interior of asteroid Apophis: a unique opportunity in 2029. Proceedings of the International Astronomical Union, 2012, 10, 481-482.	0.0	0
149	MarcoPolo-R: Near Earth Asteroid Sample Return Mission candidate as ESA-M3 class mission. Proceedings of the International Astronomical Union, 2012, 10, 483-483.	0.0	1
150	NEOShield - A global approach to NEO Impact Threat Mitigation. Proceedings of the International Astronomical Union, 2012, 10, 478-479.	0.0	0
151	AIDA: Asteroid Impact and Deflection Assessment. Proceedings of the International Astronomical Union, 2012, 10, 480-480.	0.0	2
152	Spin-up of rubble-pile asteroids: Disruption, satellite formation, and equilibrium shapes. Icarus, 2012, 220, 514-529.	2.5	114
153	MarcoPolo-R near earth asteroid sample return mission. Experimental Astronomy, 2012, 33, 645-684.	3.7	72
154	SARIM PLUSâ€"sample return of comet 67P/CG and of interstellar matter. Experimental Astronomy, 2012, 33, 723-751.	3.7	3
155	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
156	Numerical simulations of granular dynamics II: Particle dynamics in a shaken granular material. Icarus, 2012, 219, 321-335.	2.5	8
157	Proposal of a Spatial Decision Support System architecture to estimate the consequences and costs of small meteorites impacts. Natural Hazards and Earth System Sciences, 2011, 11, 3013-3021.	3.6	0
158	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
159	The Asteroid Veritas: An intruder in a family named after it?. Icarus, 2011, 211, 535-545.	2.5	17
160	Numerical simulations of granular dynamics: I. Hard-sphere discrete element method and tests. Icarus, 2011, 212, 427-437.	2.5	61
161	Collisional and Rotational Disruption of Asteroids. Advanced Science Letters, 2011, 4, 311-324.	0.2	4
162	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

#	Article	IF	CITATIONS
163	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
164	Fragment properties at the catastrophic disruption threshold: The effect of the parent body's internal structure. Icarus, 2010, 207, 54-65.	2.5	114
165	Itokawa's cratering record as observed by Hayabusa: Implications for its age and collisional history. Icarus, 2009, 200, 503-513.	2.5	74
166	MARCO POLO: near earth object sample return mission. Experimental Astronomy, 2009, 23, 785-808.	3.7	30
167	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
168	Numerical simulations of impacts involving porous bodies. Icarus, 2009, 201, 802-813.	2.5	71
169	Numerical simulations of asteroids modelled as gravitational aggregates with cohesion. Planetary and Space Science, 2009, 57, 183-192.	1.7	84
170	Tidal disruptions. Icarus, 2008, 193, 283-301.	2.5	66
171	Numerical simulations of impacts involving porous bodies. Icarus, 2008, 198, 242-255.	2.5	115
172	Rotational breakup as the origin of small binary asteroids. Nature, 2008, 454, 188-191.	27.8	329
173	Asteroids and Their Collisional Disruption. Lecture Notes in Physics, 2008, , 1-27.	0.7	5
174	On the Strength and Disruption Mechanisms of Small Bodies in the Solar System. Lecture Notes in Physics, 2008, , 1-30.	0.7	1
175	Weibull parameters of Yakunobasalt targets used in documented high-velocity impact experiments. Journal of Geophysical Research, 2007, $112$ , .	3.3	40
176	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
177	Tidal disturbances of small cohesionless bodies: limits on planetary close approach distances. Proceedings of the International Astronomical Union, 2006, 2, 201-210.	0.0	0
178	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
179	Tidal disruptions: A continuum theory for solid bodies. Icarus, 2006, 183, 331-348.	2.5	65
180	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

#	Article	IF	CITATIONS
181	Modelling Collisions Between Asteroids: From Laboratory Experiments to Numerical Simulations. Lecture Notes in Physics, 2006, , 117-143.	0.7	3
182	Origin and dynamics of Near Earth Objects. Comptes Rendus Physique, 2005, 6, 291-301.	0.9	18
183	Earth impact probability of the Asteroid (25143) Itokawa to be sampled by the spacecraft Hayabusa. Icarus, 2005, 179, 291-296.	2.5	17
184	Catastrophic disruption of pre-shattered parent bodies. Icarus, 2004, 168, 420-432.	2.5	61
185	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
186	The shallow magnitude distribution of asteroid families. Icarus, 2003, 162, 328-336.	2.5	31
187	Disruption of fragmented parent bodies as the origin of asteroid families. Nature, 2003, 421, 608-611.	27.8	120
188	Formation of Asteroid Families by Catastrophic Disruption: Simulations with Fragmentation and Gravitational Reaccumulation. Icarus, 2002, 160, 10-23.	2.5	90
189	Origin and Evolution of Near-Earth Objects. , 2002, , 409-422.		132
190	Probable asteroidal origin of the Tunguska Cosmic Body. Astronomy and Astrophysics, 2001, 377, 1081-1097.	5.1	53
191	Collisions and Gravitational Reaccumulation: Forming Asteroid Families and Satellites. Science, 2001, 294, 1696-1700.	12.6	257
192	Dynamics of Small Earth-Approachers on Low-Eccentricity Orbits and Implications for Their Origins. , 2001, , 93-112.		1
193	Estimated Abundance of Atens and Asteroids Evolving on Orbits between Earth and Sun. Icarus, 2000, 143, 421-424.	2.5	40
194	The Population of Mars-Crossers: Classification and Dynamical Evolution. Icarus, 2000, 145, 332-347.	2.5	54
195	Dynamics of Small Earth-Approachers on Low-Eccentricity Orbits and Implications for Their Origins. Celestial Mechanics and Dynamical Astronomy, 2000, 78, 93-112.	1.4	3
196	On the Size Distribution of Asteroid Families: The Role of Geometry. Icarus, 1999, 141, 65-78.	2.5	124
197	The Velocity–Size Relationship for Members of Asteroid Families and Implications for the Physics of Catastrophic Collisions. Icarus, 1999, 141, 79-95.	2.5	61
198	1620 Geographos and 433 Eros: Shaped by Planetary Tides?. Astronomical Journal, 1999, 117, 1921-1928.	4.7	48

#	Article	IF	CITATIONS
199	Secular Resonances: Transport Mechanism to Earthâ€"Crossing Orbits. , 1999, , 171-177.		1
200	Dynamical transport mechanisms of planet-crossing bodies. International Astronomical Union Colloquium, 1999, 173, 87-96.	0.1	1
201	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
202	Origin of Multikilometer Earth- and Mars-Crossing Asteroids: A Quantitative Simulation. , 1998, 281, 2022-2024.		106
203	Dynamics of Eros. Astronomical Journal, 1998, 116, 2023-2031.	4.7	37
204	Secular Dynamics of Asteroids in the Inner Solar System. , 1998, , 133-147.		0
205	Dynamical Lifetimes of Objects Injected into Asteroid Belt Resonances. Science, 1997, 277, 197-201.	12.6	399
206	Secular Dynamics of Asteroids in the Inner Solar System. Celestial Mechanics and Dynamical Astronomy, 1997, 69, 133-147.	1.4	5
207	The Location of Linear Secular Resonances for Semimajor Axes Smaller Than 2 AU. Icarus, 1997, 128, 230-240.	2.5	77
208	Effects of Linear Secular Resonances in the Region of Semimajor Axes Smaller Than 2 AU. Icarus, 1997, 129, 348-366.	2.5	37
209	The orbital evolution of the asteroid Eros and implications for collision with the Earth. Nature, 1996, 380, 689-691.	27.8	45