Martin Jutzi

List of Publications by Year
in descending order

51 papers	2,164 citations	236925 25 h-index	223800 46 g-index
65 all docs	65 docs citations	65 times ranked	1803 citing authors

#	Article	IF	Citations
1	An artificial impact on the asteroid (162173) Ryugu formed a crater in the gravity-dominated regime. Science, 2020, 368, 67-71.	12.6	183
2	Chondrule formation during planetesimal accretion. Earth and Planetary Science Letters, 2011, 308, 369-379.	4.4	125
3	Numerical simulations of impacts involving porous bodies. Icarus, 2008, 198, 242-255.	2.5	115
4	Fragment properties at the catastrophic disruption threshold: The effect of the parent bodyâ€™s internal structure. Icarus, 2010, 207, 54-65.	2.5	114
5	Asteroid Impact & Deflection Assessment mission: Kinetic impactor. Planetary and Space Science, 2016, 121, 27-35.	1.7	110
6	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
7	Collisional formation of top-shaped asteroids and implications for the origins of Ryugu and Bennu. Nature Communications, 2020, 11, 2655.	12.8	87
8	The structure of the asteroid 4â€‰Vesta as revealed by models of planet-scale collisions. Nature, 2013, 494, 207-210.	27.8	85
9	SPH calculations of asteroid disruptions: The role of pressure dependent failure models. Planetary and Space Science, 2015, 107, 3-9.	1.7	85
10	Hypervelocity impacts on asteroids and momentum transfer I. Numerical simulations using porous targets. Icarus, 2014, 229, 247-253.	2.5	78
11	The shape and structure of cometary nuclei as a result of low-velocity accretion. Science, 2015, 348, 1355-1358.	12.6	76
12	Formation of bi-lobed shapes by sub-catastrophic collisions. Astronomy and Astrophysics, 2017, 597, A62.	5.1	72
13	Numerical simulations of impacts involving porous bodies. Icarus, 2009, 201, 802-813.	2.5	71
14	Forming the lunar farside highlands by accretion of a companion moon. Nature, 2011, 476, 69-72.	27.8	71
15	Coupling SPH and thermochemical models of planets: Methodology and example of a Mars-sized body. Icarus, 2018, 301, 235-246.	2.5	65
16	Catastrophic disruptions as the origin of bilobate comets. Nature Astronomy, 2018, 2, 379-382.	10.1	60
17	SPH calculations of Mars-scale collisions: The role of the equation of state, material rheologies, and numerical effects. Icarus, 2018, 301, 247-257.	2.5	56
18	A deep crustâ€“mantle boundary in the asteroid 4ÂVesta. Nature, 2014, 511, 303-306.	27.8	54

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19	How primordial is the structure of comet 67P?. Astronomy and Astrophysics, 2017, 597, A61.	5.1	48
20	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
21	Mega-ejecta on asteroid Vesta. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	40
22	Asteroid Ryugu before the Hayabusa2 encounter. Progress in Earth and Planetary Science, 2018, 5, .	3.0	39
23	Is Vesta an intact and pristine protoplanet?. Icarus, 2015, 254, 190-201.	2.5	30
24	The peculiar shapes of Saturnâ€™s small inner moons as evidence of mergers of similar-sized moonlets. Nature Astronomy, 2018, 2, 555-561.	10.1	27
25	Global-scale Reshaping and Resurfacing of Asteroids by Small-scale Impacts, with Applications to the DART and Hera Missions. Planetary Science Journal, 2022, 3, 128.	3.6	27
26	Predictions for the LCROSS mission. Meteoritics and Planetary Science, 2009, 44, 603-620.	1.6	26
27	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
28	Influence of the projectile geometry on the momentum transfer from a kinetic impactor and implications for the DART mission. International Journal of Impact Engineering, 2022, 162, 104147.	5.0	22
29	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
30	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
31	The Asteroid Veritas: An intruder in a family named after it?. Icarus, 2011, 211, 535-545.	2.5	17
32	Relevance of tidal heating on large TNOs. Icarus, 2018, 302, 245-260.	2.5	17
33	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
34	Gravity-dominated Collisions: A Model for the Largest Remnant Masses with Treatment for â€œHit and Runâ€• and Density Stratification. Astrophysical Journal, 2020, 892, 40.	4.5	16
35	A large crater as a probe of the internal structure of the E-type asteroid Steins. Astronomy and Astrophysics, 2010, 509, L2.	5.1	15
36	Collisional heating and compaction of small bodies: Constraints for their origin and evolution. Icarus, 2020, 350, 113867.	2.5	13

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37	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
38	The influence of recent major crater impacts on the surrounding surfaces of (21) Lutetia. Icarus, 2013, 226, 89-100.	2.5	10
39	Small-body deflection techniques using spacecraft: Techniques in simulating the fate of ejecta. Advances in Space Research, 2016, 57, 1832-1846.	2.6	10
40	The shape and structure of small asteroids as a result of sub-catastrophic collisions. Planetary and Space Science, 2019, 177, 104695.	1.7	10
41	Impacts into rotating targets: angular momentum draining and efficient formation of synthetic families. Astronomy and Astrophysics, 2019, 629, A122.	5.1	9
42	An Impacting Descent Probe for Europa and the Other Galilean Moons of Jupiter. Earth, Moon and Planets, 2017, 120, 113-146.	0.6	8
43	Modification of icy planetesimals by early thermal evolution and collisions: Constraints for formation time and initial size of comets and small KBOs. Icarus, 2021, 363, 114437.	2.5	8
44	Modeling Asteroid Collisions and Impact Processes. , 2015, , .		8
45	Planetary Impact Processes in Porous Materials. Shock Wave and High Pressure Phenomena, 2019, , 103-136.	0.1	6
46	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
47	Collision and impact simulations including porosity. Proceedings of the International Astronomical Union, 2006, 2, 223-231.	0.0	3
48	The late accretion and erosion of Vestaâ€™s crust recorded by eucrites and diogenites as an astrochemical window into the formation of Jupiter and the early evolution of the Solar System. Icarus, 2018, 311, 224-241.	2.5	3
49	Dispersion and shattering strength of rocky and frozen planetesimals studied by laboratory experiments and numerical simulations. Icarus, 2022, 373, 114777.	2.5	2
50	Collisional Evolution of the Main Belt as Recorded by Vesta. , 2022, , 250-261.		1
51	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