

Martin Jutzi

List of Publications by Year in descending order

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Version: 2024-02-01

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	Dispersion and shattering strength of rocky and frozen planetesimals studied by laboratory experiments and numerical simulations. <i>Icarus</i> , 2022, 373, 114777.	2.5	2
2	Influence of the projectile geometry on the momentum transfer from a kinetic impactor and implications for the DART mission. <i>International Journal of Impact Engineering</i> , 2022, 162, 104147.	5.0	22
3	Collisional Evolution of the Main Belt as Recorded by Vesta. , 2022, , 250-261.		1
4	Global-scale Reshaping and Resurfacing of Asteroids by Small-scale Impacts, with Applications to the DART and Hera Missions. <i>Planetary Science Journal</i> , 2022, 3, 128.	3.6	27
5	Double Asteroid Redirection Test (DART): Structural and Dynamic Interactions between Asteroidal Elements of Binary Asteroid (65803) Didymos. <i>Planetary Science Journal</i> , 2022, 3, 140.	3.6	12
6	Predictions for the Dynamical States of the Didymos System before and after the Planned DART Impact. <i>Planetary Science Journal</i> , 2022, 3, 157.	3.6	23
7	Modification of icy planetesimals by early thermal evolution and collisions: Constraints for formation time and initial size of comets and small KBOs. <i>Icarus</i> , 2021, 363, 114437.	2.5	8
8	Collisional formation of top-shaped asteroids and implications for the origins of Ryugu and Bennu. <i>Nature Communications</i> , 2020, 11, 2655.	12.8	87
9	Collisional heating and compaction of small bodies: Constraints for their origin and evolution. <i>Icarus</i> , 2020, 350, 113867.	2.5	13
10	An artificial impact on the asteroid (162173) Ryugu formed a crater in the gravity-dominated regime. <i>Science</i> , 2020, 368, 67-71.	12.6	183
11	Gravity-dominated Collisions: A Model for the Largest Remnant Masses with Treatment for Hit and Run and Density Stratification. <i>Astrophysical Journal</i> , 2020, 892, 40.	4.5	16
12	Fragment properties from large-scale asteroid collisions: I: Results from SPH/N-body simulations using porous parent bodies and improved material models. <i>Icarus</i> , 2019, 317, 215-228.	2.5	21
13	The shape and structure of small asteroids as a result of sub-catastrophic collisions. <i>Planetary and Space Science</i> , 2019, 177, 104695.	1.7	10
14	Impacts into rotating targets: angular momentum draining and efficient formation of synthetic families. <i>Astronomy and Astrophysics</i> , 2019, 629, A122.	5.1	9
15	Assessing possible mutual orbit period change by shape deformation of Didymos after a kinetic impact in the NASA-led Double Asteroid Redirection Test. <i>Advances in Space Research</i> , 2019, 63, 2515-2534.	2.6	21
16	Planetary Impact Processes in Porous Materials. <i>Shock Wave and High Pressure Phenomena</i> , 2019, , 103-136.	0.1	6
17	Catastrophic disruptions as the origin of bilobate comets. <i>Nature Astronomy</i> , 2018, 2, 379-382.	10.1	60
18	The late accretion and erosion of Vesta's crust recorded by eucrites and diogenites as an astrochemical window into the formation of Jupiter and the early evolution of the Solar System. <i>Icarus</i> , 2018, 311, 224-241.	2.5	3

#	ARTICLE	IF	CITATIONS
19	Coupling SPH and thermochemical models of planets: Methodology and example of a Mars-sized body. <i>Icarus</i> , 2018, 301, 235-246.	2.5	65
20	SPH calculations of Mars-scale collisions: The role of the equation of state, material rheologies, and numerical effects. <i>Icarus</i> , 2018, 301, 247-257.	2.5	56
21	Asteroid Ryugu before the Hayabusa2 encounter. <i>Progress in Earth and Planetary Science</i> , 2018, 5, .	3.0	39
22	The peculiar shapes of Saturn's small inner moons as evidence of mergers of similar-sized moonlets. <i>Nature Astronomy</i> , 2018, 2, 555-561.	10.1	27
23	Relevance of tidal heating on large TNOs. <i>Icarus</i> , 2018, 302, 245-260.	2.5	17
24	How primordial is the structure of comet 67P?. <i>Astronomy and Astrophysics</i> , 2017, 597, A61.	5.1	48
25	Formation of bi-lobed shapes by sub-catastrophic collisions. <i>Astronomy and Astrophysics</i> , 2017, 597, A62.	5.1	72
26	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. <i>Space Science Reviews</i> , 2017, 208, 187-212.	8.1	44
27	An Impacting Descent Probe for Europa and the Other Galilean Moons of Jupiter. <i>Earth, Moon and Planets</i> , 2017, 120, 113-146.	0.6	8
28	Small-body deflection techniques using spacecraft: Techniques in simulating the fate of ejecta. <i>Advances in Space Research</i> , 2016, 57, 1832-1846.	2.6	10
29	Asteroid Impact & Deflection Assessment mission: Kinetic impactor. <i>Planetary and Space Science</i> , 2016, 121, 27-35.	1.7	110
30	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
31	The shape and structure of cometary nuclei as a result of low-velocity accretion. <i>Science</i> , 2015, 348, 1355-1358.	12.6	76
32	SPH calculations of asteroid disruptions: The role of pressure dependent failure models. <i>Planetary and Space Science</i> , 2015, 107, 3-9.	1.7	85
33	Is Vesta an intact and pristine protoplanet?. <i>Icarus</i> , 2015, 254, 190-201.	2.5	30
34	Selective sampling during catastrophic disruption: Mapping the location of reaccumulated fragments in the original parent body. <i>Planetary and Space Science</i> , 2015, 107, 24-28.	1.7	16
35	Origin and history of ureilitic material in the solar system: The view from asteroid 2008 TC ₃ and the Almahata Sitta meteorite. <i>Meteoritics and Planetary Science</i> , 2015, 50, 782-809.	1.6	92
36	Modeling Asteroid Collisions and Impact Processes. , 2015, , .		8

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37	A deep crust-mantle boundary in the asteroid 4Vesta. <i>Nature</i> , 2014, 511, 303-306.	27.8	54
38	Hypervelocity impacts on asteroids and momentum transfer I. Numerical simulations using porous targets. <i>Icarus</i> , 2014, 229, 247-253.	2.5	78
39	The structure of the asteroid 4Vesta as revealed by models of planet-scale collisions. <i>Nature</i> , 2013, 494, 207-210.	27.8	85
40	The influence of recent major crater impacts on the surrounding surfaces of (21) Lutetia. <i>Icarus</i> , 2013, 226, 89-100.	2.5	10
41	Forming the lunar farside highlands by accretion of a companion moon. <i>Nature</i> , 2011, 476, 69-72.	27.8	71
42	Mega-ejecta on asteroid Vesta. <i>Geophysical Research Letters</i> , 2011, 38, n/a-n/a.	4.0	40
43	Chondrule formation during planetesimal accretion. <i>Earth and Planetary Science Letters</i> , 2011, 308, 369-379.	4.4	125
44	The Asteroid Veritas: An intruder in a family named after it?. <i>Icarus</i> , 2011, 211, 535-545.	2.5	17
45	Fragment properties at the catastrophic disruption threshold: The effect of the parent body's internal structure. <i>Icarus</i> , 2010, 207, 54-65.	2.5	114
46	A large crater as a probe of the internal structure of the E-type asteroid Steins. <i>Astronomy and Astrophysics</i> , 2010, 509, L2.	5.1	15
47	The formation of the Baptistina family by catastrophic disruption: Porous versus non-porous parent body. <i>Meteoritics and Planetary Science</i> , 2009, 44, 1877-1887.	1.6	5
48	Numerical simulations of impacts involving porous bodies. <i>Icarus</i> , 2009, 201, 802-813.	2.5	71
49	Predictions for the LCROSS mission. <i>Meteoritics and Planetary Science</i> , 2009, 44, 603-620.	1.6	26
50	Numerical simulations of impacts involving porous bodies. <i>Icarus</i> , 2008, 198, 242-255.	2.5	115
51	Collision and impact simulations including porosity. <i>Proceedings of the International Astronomical Union</i> , 2006, 2, 223-231.	0.0	3