

Axel Hagermann

List of Publications by Year in descending order

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73
papers

2,040
citations

304743

22
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243625

44
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74
all docs

74
docs citations

74
times ranked

1932
citing authors

#	ARTICLE	IF	CITATIONS
1	The geomorphology, color, and thermal properties of Ryugu: Implications for parent-body processes. <i>Science</i> , 2019, 364, 252.	12.6	313
2	Thermal and mechanical properties of the near-surface layers of comet 67P/Churyumov-Gerasimenko. <i>Science</i> , 2015, 349, aab0464.	12.6	158
3	A soft solid surface on Titan as revealed by the Huygens Surface Science Package. <i>Nature</i> , 2005, 438, 792-795.	27.8	139
4	Low thermal conductivity boulder with high porosity identified on C-type asteroid (162173) Ryugu. <i>Nature Astronomy</i> , 2019, 3, 971-976.	10.1	124
5	Boulder size and shape distributions on asteroid Ryugu. <i>Icarus</i> , 2019, 331, 179-191.	2.5	107
6	Highly porous nature of a primitive asteroid revealed by thermal imaging. <i>Nature</i> , 2020, 579, 518-522.	27.8	100
7	Mupus – A Thermal and Mechanical Properties Probe for the Rosetta Lander Philae. <i>Space Science Reviews</i> , 2007, 128, 339-362.	8.1	95
8	Thermal Infrared Imaging Experiments of C-Type Asteroid 162173 Ryugu on Hayabusa2. <i>Space Science Reviews</i> , 2017, 208, 255-286.	8.1	64
9	A Pre-Landing Assessment of Regolith Properties at the InSight Landing Site. <i>Space Science Reviews</i> , 2018, 214, 1.	8.1	58
10	Penetrators for in situ subsurface investigations of Europa. <i>Advances in Space Research</i> , 2011, 48, 725-742.	2.6	51
11	Particle lifting at the soil-air interface by atmospheric pressure excursions in dust devils. <i>Geophysical Research Letters</i> , 2006, 33, .	4.0	49
12	Fragment shapes in impact experiments ranging from cratering to catastrophic disruption. <i>Icarus</i> , 2016, 264, 316-330.	2.5	43
13	Recent Basal Melting of a Mid-Latitude Glacier on Mars. <i>Journal of Geophysical Research E: Planets</i> , 2017, 122, 2445-2468.	3.6	43
14	Asteroid Ryugu before the Hayabusa2 encounter. <i>Progress in Earth and Planetary Science</i> , 2018, 5, .	3.0	39
15	In situ methods for measuring thermal properties and heat flux on planetary bodies. <i>Planetary and Space Science</i> , 2011, 59, 639-660.	1.7	34
16	Anomalously porous boulders on (162173) Ryugu as primordial materials from its parent body. <i>Nature Astronomy</i> , 2021, 5, 766-774.	10.1	30
17	Descent motions of the Huygens probe as measured by the Surface Science Package (SSP): Turbulent evidence for a cloud layer. <i>Planetary and Space Science</i> , 2007, 55, 1936-1948.	1.7	29
18	Comet 67P/Churyumov-Gerasimenko: Hardening of the sub-surface layer. <i>Icarus</i> , 2015, 260, 464-474.	2.5	28

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19	Planetary heat flow measurements. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2005, 363, 2777-2791.	3.4	25
20	Ejecta deposit thickness, heat flow, and a critical ambiguity on the Moon. Geophysical Research Letters, 2006, 33, .	4.0	24
21	A heat flow and physical properties package for the surface of Mercury. Planetary and Space Science, 2001, 49, 1571-1577.	1.7	23
22	Experimental investigation of insolation-driven dust ejection from Mars's CO ₂ ice caps. Icarus, 2017, 282, 118-126.	2.5	22
23	Boulder sizes and shapes on asteroids: A comparative study of Eros, Itokawa and Ryugu. Icarus, 2021, 357, 114282.	2.5	22
24	Penetrometry of granular and moist planetary surface materials: Application to the Huygens landing site on Titan. Icarus, 2010, 210, 843-851.	2.5	21
25	Clastic polygonal networks around Lyot crater, Mars: Possible formation mechanisms from morphometric analysis. Icarus, 2018, 302, 386-406.	2.5	21
26	Speed of sound measurements and the methane abundance in Titan's atmosphere. Icarus, 2007, 189, 538-543.	2.5	19
27	Physical properties of Titan's surface at the Huygens landing site from the Surface Science Package Acoustic Properties sensor (API-S). Icarus, 2006, 185, 457-465.	2.5	18
28	LunarNet—a proposal to cosmic vision. Experimental Astronomy, 2009, 23, 711-740.	3.7	18
29	Mapping Medusae Fossae Formation materials in the southern highlands of Mars. Icarus, 2010, 209, 405-415.	2.5	18
30	Sinuuous ridges in Chukhung crater, Tempe Terra, Mars: Implications for fluvial, glacial, and glaciofluvial activity. Icarus, 2021, 357, 114131.	2.5	18
31	Prelaunch performance evaluation of the cometary experiment MUPUS-TP. Journal of Geophysical Research, 2004, 109, .	3.3	17
32	Influence of petrographic textures on the shapes of impact experiment fine fragments measuring several tens of microns: Comparison with Itokawa regolith particles. Icarus, 2018, 302, 109-125.	2.5	17
33	Lunar Net—a proposal in response to an ESA M3 call in 2010 for a medium sized mission. Experimental Astronomy, 2012, 33, 587-644.	3.7	15
34	Near Surface Properties of Martian Regolith Derived From InSight HP ³ RAD Temperature Observations During Phobos Transits. Geophysical Research Letters, 2021, 48, e2021GL093542.	4.0	13
35	Silence on Shangri-La: Attenuation of Huygens acoustic signals suggests surface volatiles. Planetary and Space Science, 2014, 90, 72-80.	1.7	12
36	Clastic patterned ground in Lomonosov crater, Mars: examining fracture controlled formation mechanisms. Icarus, 2017, 295, 125-139.	2.5	12

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37	Constraining the parameter space of comet simulation experiments. <i>Icarus</i> , 2018, 311, 105-112.	2.5	12
38	CO ₂ sublimation in Martian gullies: laboratory experiments at varied slope angle and regolith grain sizes. <i>Geological Society Special Publication</i> , 2019, 467, 343-371.	1.3	12
39	Morphometry of a glacier-linked esker in NW Tempe Terra, Mars, and implications for sediment-discharge dynamics of subglacial drainage. <i>Earth and Planetary Science Letters</i> , 2020, 542, 116325.	4.4	12
40	A method to invert MUPUS. Temperature recordings for the subsurface temperature field of P/Wirtanen. <i>Advances in Space Research</i> , 1999, 23, 1333-1336.	2.6	11
41	A branching, positive relief network in the middle member of the Medusae Fossae Formation, equatorial Mars—Evidence for sapping?. <i>Planetary and Space Science</i> , 2013, 85, 142-163.	1.7	11
42	Oblique impact cratering experiments in brittle targets: Implications for elliptical craters on the Moon. <i>Planetary and Space Science</i> , 2017, 135, 27-36.	1.7	11
43	The Penetration of Solar Radiation Into Carbon Dioxide Ice. <i>Journal of Geophysical Research E: Planets</i> , 2018, 123, 864-871.	3.6	11
44	Earth and moon observations by thermal infrared imager on Hayabusa2 and the application to detectability of asteroid 162173 Ryugu. <i>Planetary and Space Science</i> , 2018, 158, 46-52.	1.7	10
45	Hardness and Yield Strength of CO Ice Under Martian Temperature Conditions. <i>Journal of Geophysical Research E: Planets</i> , 2020, 125, e2019JE006217.	3.6	10
46	Thermal and microstructural properties of fine-grained material at the Viking Lander 1 site. <i>Icarus</i> , 2016, 271, 360-374.	2.5	9
47	Computer modelling of a penetrator thermal sensor. <i>Advances in Space Research</i> , 2010, 46, 337-345.	2.6	8
48	Penetration of solar radiation into pure and Mars-dust contaminated snow. <i>Icarus</i> , 2015, 252, 144-149.	2.5	8
49	In situ thermal conductivity measurements of Titan's lower atmosphere. <i>Icarus</i> , 2008, 197, 579-584.	2.5	7
50	Virial treatment of the speed of sound in cold, dense atmospheres and application to Titan. <i>Monthly Notices of the Royal Astronomical Society</i> , 2006, 368, 321-324.	4.4	6
51	The Penetration of Solar Radiation Into Granular Carbon Dioxide and Water Ices of Varying Grain Sizes on Mars. <i>Journal of Geophysical Research E: Planets</i> , 2020, 125, e2019JE006097.	3.6	6
52	Physical properties as indicators of liquid compositions: Derivation of the composition for Titan's surface liquids from the Huygens SSP measurements. <i>Monthly Notices of the Royal Astronomical Society</i> , 2005, 359, 637-642.	4.4	5
53	Impact cratering experiments in brittle targets with variable thickness: Implications for deep pit craters on Mars. <i>Planetary and Space Science</i> , 2014, 96, 71-80.	1.7	5
54	Detection of structure in asteroid analogue materials and Titan's regolith by a landing spacecraft. <i>Advances in Space Research</i> , 2016, 58, 415-437.	2.6	5

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55	Three-dimensional imaging of crack growth in L chondrites after high-velocity impact experiments. Planetary and Space Science, 2019, 177, 104690.	1.7	5
56	The Penetration of Solar Radiation Into Water and Carbon Dioxide Snow, With Reference to Mars. Journal of Geophysical Research E: Planets, 2019, 124, 337-348.	3.6	5
57	Thermal conductivity instrument for measuring planetary atmospheric properties and data analysis technique. Journal of Thermal Analysis and Calorimetry, 2007, 87, 585-590.	3.6	4
58	The Huygens scientific data archive: Technical overview. Planetary and Space Science, 2008, 56, 770-777.	1.7	4
59	The distribution of putative periglacial landforms on the martian northern plains. Icarus, 2018, 314, 133-148.	2.5	4
60	APPLICATION OF PENETRATORS WITHIN THE SOLAR SYSTEM. , 0, , 307-320.		4
61	Planetary heat flow from shallow subsurface measurements: Mars. Planetary and Space Science, 2016, 131, 46-59.	1.7	3
62	Gas flow in martian spider formation. Icarus, 2021, 359, 114355.	2.5	3
63	The modified Rankine balance: A highly efficient, low-cost method to measure low-temperature magnetic susceptibility in rock samples. Review of Scientific Instruments, 2002, 73, 2655-2658.	1.3	2
64	Speed of sound in nitrogen as a function of temperature and pressure. Journal of the Acoustical Society of America, 2005, 118, 1272-1273.	1.1	2
65	Inferring the composition of the liquid surface on Titan at the Huygens probe landing site from Surface Science Package measurements. Advances in Space Research, 2006, 38, 794-798.	2.6	2
66	Rosetta Lander (‘‘Philae’’) Investigations. , 2009, , 1-171.		2
67	Three-axial shape distributions of pebbles, cobbles and boulders smaller than a few meters on asteroid Ryugu. Icarus, 2022, 381, 115007.	2.5	1
68	A Simple Way of Simulating Insolation on a Rotating Body with a Commercial Solar Simulator. International Journal of Thermophysics, 2022, 43, .	2.1	1
69	Towards a Holistic Framework for Driving Performance in Externally-Funded Academic Research. Higher Education Quarterly, 2009, 63, 196-206.	2.7	0
70	UK Mars research and priorities in the Aurora programme. Astronomy and Geophysics, 2011, 52, 2.34-2.36.	0.2	0
71	WatSen: design and testing of a prototype mid-IR spectrometer and microscope package for Mars exploration. Experimental Astronomy, 2013, 36, 175-193.	3.7	0
72	Potential effects of atmospheric collapse on Martian heat flow and application to the InSight measurements. Planetary and Space Science, 2020, 180, 104778.	1.7	0

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73	Thermal Infrared Imaging Experiments of C-Type Asteroid 162173 Ryugu on Hayabusa2. , 2016, , 255-286.		0