

Paul Hayne

List of Publications by Year in descending order

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74
papers

3,554
citations

172457

29
h-index

133252

59
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75
all docs

75
docs citations

75
times ranked

2226
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 1 | The case for a Themis asteroid family spacecraft mission. <i>Planetary and Space Science</i> , 2022, 212, 105413. | 1.7 | 3 |
| 2 | Temperatures of the Lacus Mortis Region of the Moon. <i>Earth and Space Science</i> , 2022, 9, . | 2.6 | 2 |
| 3 | Spatial Distribution and Thermal Diversity of Surface Volatile Cold Traps at the Lunar Poles. <i>Planetary Science Journal</i> , 2022, 3, 39. | 3.6 | 16 |
| 4 | Volatile interactions with the lunar surface. <i>Chemie Der Erde</i> , 2022, 82, 125858. | 2.0 | 26 |
| 5 | The Effects of Terrain Properties Upon the Small Crater Population Distribution at Giordano Bruno: Implications for Lunar Chronology. <i>Journal of Geophysical Research E: Planets</i> , 2022, 127, . | 3.6 | 5 |
| 6 | Polar Ice Accumulation from Volcanically Induced Transient Atmospheres on the Moon. <i>Planetary Science Journal</i> , 2022, 3, 99. | 3.6 | 13 |
| 7 | Composition and possible origins of dark crater ejecta on Europa. <i>Icarus</i> , 2022, 385, 115037. | 2.5 | 1 |
| 8 | Thermophysical Properties of Lunar Irregular Mare Patches From LRO Diviner Radiometer Data. <i>Journal of Geophysical Research E: Planets</i> , 2022, 127, . | 3.6 | 4 |
| 9 | Thermal and Illumination Environments of Lunar Pits and Caves: Models and Observations From the Diviner Lunar Radiometer Experiment. <i>Geophysical Research Letters</i> , 2022, 49, . | 4.0 | 16 |
| 10 | The spectral radiance of indirectly illuminated surfaces in regions of permanent shadow on the Moon. <i>Acta Astronautica</i> , 2021, 180, 25-34. | 3.2 | 7 |
| 11 | Micro cold traps on the Moon. <i>Nature Astronomy</i> , 2021, 5, 169-175. | 10.1 | 63 |
| 12 | Chang'e-4 Rover Spectra Revealing Micro-scale Surface Thermophysical Properties of the Moon. <i>Geophysical Research Letters</i> , 2021, 48, e2020GL089226. | 4.0 | 3 |
| 13 | Small Penetrator Instrument Concept for the Advancement of Lunar Surface Science. <i>Planetary Science Journal</i> , 2021, 2, 38. | 3.6 | 5 |
| 14 | The Importance of the Climate Record in the Martian Polar Layered Deposits. , 2021, 53, . | | 1 |
| 15 | Impacts on the Moon: Analysis methods and size distribution of impactors. <i>Planetary and Space Science</i> , 2021, 200, 105201. | 1.7 | 10 |
| 16 | Europa's hemispheric color dichotomy as a constraint on non-synchronous rotation. <i>Icarus</i> , 2021, 364, 114438. | 2.5 | 3 |
| 17 | New Constraints on Thermal and Dielectric Properties of Lunar Regolith from LRO Diviner and CE-2 Microwave Radiometer. <i>Journal of Geophysical Research E: Planets</i> , 2020, 125, e2019JE006130. | 3.6 | 29 |
| 18 | Coevolution of Mars's atmosphere and massive south polar CO ₂ ice deposit. <i>Nature Astronomy</i> , 2020, 4, 364-371. | 10.1 | 22 |

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|----|--|-----|-----------|
| 19 | Surface Roughness Evolution and Implications for the Age of the North Polar Residual Cap of Mars. Journal of Geophysical Research E: Planets, 2020, 125, e2020JE006570. | 3.6 | 6 |
| 20 | Lunar Titanium and Frequency-Dependent Microwave Loss Tangent as Constrained by the Chang'E-2 MRM and LRO Diviner Lunar Radiometers. Journal of Geophysical Research E: Planets, 2020, 125, e2020JE006405. | 3.6 | 27 |
| 21 | Asymmetries in Snowfall, Emissivity, and Albedo of Mars' Seasonal Polar Caps: Mars Climate Sounder Observations. Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006150. | 3.6 | 19 |
| 22 | The Holy Grail: A road map for unlocking the climate record stored within Mars' polar layered deposits. Planetary and Space Science, 2020, 184, 104841. | 1.7 | 30 |
| 23 | Lunar Flashlight: Illuminating the Lunar South Pole. IEEE Aerospace and Electronic Systems Magazine, 2020, 35, 46-52. | 1.3 | 16 |
| 24 | Seasonal Polar Temperatures on the Moon. Journal of Geophysical Research E: Planets, 2019, 124, 2505-2521. | 3.6 | 80 |
| 25 | The Young Age of the LAMP-Observed Frost in Lunar Polar Cold Traps. Geophysical Research Letters, 2019, 46, 8680-8688. | 4.0 | 41 |
| 26 | Thermophysical Properties of the North Polar Residual Cap using Mars Global Surveyor Thermal Emission Spectrometer. Journal of Geophysical Research E: Planets, 2019, 124, 1315-1330. | 3.6 | 8 |
| 27 | Moon Diver: A Discovery Mission Concept for Understanding the History of Secondary Crusts through the Exploration of a Lunar Mare Pit. , 2019, , . | | 21 |
| 28 | Evidence for ultra-cold traps and surface water ice in the lunar south polar crater Amundsen. Icarus, 2019, 332, 1-13. | 2.5 | 19 |
| 29 | Diurnally Migrating Lunar Water: Evidence From Ultraviolet Data. Geophysical Research Letters, 2019, 46, 2417-2424. | 4.0 | 49 |
| 30 | Design and Characterization of the Multi-Band SWIR Receiver for the Lunar Flashlight CubeSat Mission. Remote Sensing, 2019, 11, 440. | 4.0 | 5 |
| 31 | Widespread Shallow Water Ice on Mars at High Latitudes and Midlatitudes. Geophysical Research Letters, 2019, 46, 14290-14298. | 4.0 | 59 |
| 32 | The Subsurface Coherent Rock Content of the Moon as Revealed by Cold-Spot Craters. Journal of Geophysical Research E: Planets, 2019, 124, 3373-3384. | 3.6 | 10 |
| 33 | Water Vapor Contribution to Ceres' Exosphere From Observed Surface Ice and Postulated Ice-Exposing Impacts. Journal of Geophysical Research E: Planets, 2019, 124, 61-75. | 3.6 | 20 |
| 34 | Ongoing resurfacing of KBO Eris by volatile transport in local, collisional, sublimation atmosphere regime. Icarus, 2019, 334, 52-61. | 2.5 | 15 |
| 35 | How dielectric breakdown may contribute to the global weathering of regolith on the moon. Icarus, 2019, 319, 785-794. | 2.5 | 14 |
| 36 | CIRIS, a CubeSat-compatible, imaging radiometer for earth science and planetary missions. , 2019, , . | | 2 |

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|----|--|------|-----------|
| 37 | Hydrogen escape from Mars enhanced by deep convection in dust storms. <i>Nature Astronomy</i> , 2018, 2, 126-132. | 10.1 | 112 |
| 38 | Explorer of Enceladus and Titan (E2T): Investigating ocean worlds' evolution and habitability in the solar system. <i>Planetary and Space Science</i> , 2018, 155, 73-90. | 1.7 | 26 |
| 39 | Lunar Cold Spots and Crater Production on the Moon. <i>Journal of Geophysical Research E: Planets</i> , 2018, 123, 2380-2392. | 3.6 | 23 |
| 40 | Direct evidence of surface exposed water ice in the lunar polar regions. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 8907-8912. | 7.1 | 324 |
| 41 | Optical and mechanical designs of the multi-band SWIR receiver for the Lunar Flashlight CubeSat mission. , 2018, , . | | 0 |
| 42 | The Lunar Flashlight CubeSat instrument: A compact SWIR laser reflectometer to quantify and map water ice on the surface of the Moon. , 2018, , . | | 1 |
| 43 | Evidence for surface water ice in the lunar polar regions using reflectance measurements from the Lunar Orbiter Laser Altimeter and temperature measurements from the Diviner Lunar Radiometer Experiment. <i>Icarus</i> , 2017, 292, 74-85. | 2.5 | 119 |
| 44 | A novel technology for measuring the eruption temperature of silicate lavas with remote sensing: Application to Io and other planets. <i>Journal of Volcanology and Geothermal Research</i> , 2017, 343, 1-16. | 2.1 | 6 |
| 45 | Young lunar volcanic features: Thermophysical properties and formation. <i>Icarus</i> , 2017, 290, 224-237. | 2.5 | 23 |
| 46 | Conditions for Sublimating Water Ice to Supply Ceres' Exosphere. <i>Journal of Geophysical Research E: Planets</i> , 2017, 122, 1984-1995. | 3.6 | 40 |
| 47 | Global Regolith Thermophysical Properties of the Moon From the Diviner Lunar Radiometer Experiment. <i>Journal of Geophysical Research E: Planets</i> , 2017, 122, 2371-2400. | 3.6 | 193 |
| 48 | Design and characterization of a low cost CubeSat multi-band optical receiver to map water ice on the lunar surface for the Lunar Flashlight mission. , 2017, , . | | 0 |
| 49 | Discovery of a widespread low-latitude diurnal CO ₂ frost cycle on Mars. <i>Journal of Geophysical Research E: Planets</i> , 2016, 121, 1174-1189. | 3.6 | 50 |
| 50 | Complex explosive volcanic activity on the Moon within Oppenheimer crater. <i>Icarus</i> , 2016, 273, 296-314. | 2.5 | 24 |
| 51 | Origin of the anomalously rocky appearance of Tsiolkovskiy crater. <i>Icarus</i> , 2016, 273, 237-247. | 2.5 | 23 |
| 52 | Compositional and spatial variations in Titan dune and interdune regions from Cassini VIMS and RADAR. <i>Icarus</i> , 2016, 270, 222-237. | 2.5 | 27 |
| 53 | Thermal stability of ice on Ceres with rough topography. <i>Journal of Geophysical Research E: Planets</i> , 2015, 120, 1567-1584. | 3.6 | 93 |
| 54 | Extreme detached dust layers near Martian volcanoes: Evidence for dust transport by mesoscale circulations forced by high topography. <i>Geophysical Research Letters</i> , 2015, 42, 3730-3738. | 4.0 | 36 |

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|----|---|------|-----------|
| 55 | Variability of the martian seasonal CO ₂ cap extent over eight Mars Years. <i>Icarus</i> , 2015, 251, 164-180. | 2.5 | 72 |
| 56 | Evidence for exposed water ice in the Moon's south polar regions from Lunar Reconnaissance Orbiter ultraviolet albedo and temperature measurements. <i>Icarus</i> , 2015, 255, 58-69. | 2.5 | 188 |
| 57 | Formation of lunar swirls by magnetic field standoff of the solar wind. <i>Nature Communications</i> , 2015, 6, 6189. | 12.8 | 73 |
| 58 | Lunar surface roughness derived from LRO Diviner Radiometer observations. <i>Icarus</i> , 2015, 248, 357-372. | 2.5 | 92 |
| 59 | Titan's surface geology. , 2014, , 63-101. | | 8 |
| 60 | The role of snowfall in forming the seasonal ice caps of Mars: Models and constraints from the Mars Climate Sounder. <i>Icarus</i> , 2014, 231, 122-130. | 2.5 | 52 |
| 61 | Lunar cold spots: Granular flow features and extensive insulating materials surrounding young craters. <i>Icarus</i> , 2014, 231, 221-231. | 2.5 | 54 |
| 62 | Constraints on the recent rate of lunar ejecta breakdown and implications for crater ages. <i>Geology</i> , 2014, 42, 1059-1062. | 4.4 | 92 |
| 63 | Titan's surface composition and atmospheric transmission with solar occultation measurements by Cassini VIMS. <i>Icarus</i> , 2014, 243, 158-172. | 2.5 | 23 |
| 64 | Paleotectonics of a complex Miocene half graben formed above a detachment fault: The Diligencia basin, Orocochia Mountains, southern California. <i>Lithosphere</i> , 2014, 6, 157-176. | 1.4 | 8 |
| 65 | Precipitation-induced surface brightenings seen on Titan by Cassini VIMS and ISS. <i>Planetary Science</i> , 2013, 2, . | 1.5 | 45 |
| 66 | Abandoned frontier. <i>Nature Geoscience</i> , 2013, 6, 155-156. | 12.9 | 1 |
| 67 | Lunar equatorial surface temperatures and regolith properties from the Diviner Lunar Radiometer Experiment. <i>Journal of Geophysical Research</i> , 2012, 117, . | 3.3 | 229 |
| 68 | Carbon dioxide snow clouds on Mars: South polar winter observations by the Mars Climate Sounder. <i>Journal of Geophysical Research</i> , 2012, 117, . | 3.3 | 74 |
| 69 | Hydrated minerals on Europa's surface: An improved look from the Galileo NIMS investigation. <i>Icarus</i> , 2010, 209, 639-650. | 2.5 | 33 |
| 70 | Global Silicate Mineralogy of the Moon from the Diviner Lunar Radiometer. <i>Science</i> , 2010, 329, 1507-1509. | 12.6 | 154 |
| 71 | Diviner Lunar Radiometer Observations of the LCROSS Impact. <i>Science</i> , 2010, 330, 477-479. | 12.6 | 68 |
| 72 | Diviner Lunar Radiometer Observations of Cold Traps in the Moon's South Polar Region. <i>Science</i> , 2010, 330, 479-482. | 12.6 | 385 |

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|----|--|-----|-----------|
| 73 | VIMS spectral mapping observations of Titan during the Cassini prime mission. Planetary and Space Science, 2009, 57, 1950-1962. | 1.7 | 28 |
| 74 | Titan's surface: Search for spectral diversity and composition using the Cassini VIMS investigation. Icarus, 2008, 194, 212-242. | 2.5 | 83 |