# Hauke Hussmann

List of Publications by Year
in descending order



| 46 | 2,217 | 430874 18 | 265206 42 |
|---|---|---|---|
| papers | citations | h-index | g-index |

| 47 | 47 | 47 | 2109 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | JUpiter ICy moons Explorer (JUICE): An ESA mission to orbit Ganymede and to characterise the Jupiter system. Planetary and Space Science, 2013, 78, 1-21. | 1.7 | 455 |
| 2 | Subsurface oceans and deep interiors of medium-sized outer planet satellites and large trans-neptunian objects. Icarus, 2006, 185, 258-273. | 2.5 | 245 |
| 3 | Hydrothermal Systems in Small Ocean Planets. Astrobiology, 2007, 7, 987-1005. | 3.0 | 213 |
| 4 | Tidal friction in close-in satellites and exoplanets: The Darwin theory re-visited. Celestial Mechanics and Dynamical Astronomy, 2008, 101, 171-201. | 1.4 | 198 |
| 5 | Thermal-orbital evolution of Io and Europa. Icarus, 2004, 171, 391-410. | 2.5 | 193 |
| 6 | Thermal Equilibrium States of Europa's Ice Shell: Implications for Internal Ocean Thickness and Surface Heat Flow. Icarus, 2002, 156, 143-151. | 2.5 | 142 |
| 7 | Interior structure models and tidal Love numbers of Titan. Journal of Geophysical Research, 2003, 108, . | 3.3 | 111 |
| 8 | BepiColombo - Mission Overview and Science Goals. Space Science Reviews, 2021, 217, 1. | 8.1 | 76 |
| 9 | Implications of Rotation, Orbital States, Energy Sources, and Heat Transport for Internal Processes in Icy Satellites. Space Science Reviews, 2010, 153, 317-348. | 8.1 | 52 |
| 10 | Evolution of Icy Satellites. Space Science Reviews, 2010, 153, 447-484. | 8.1 | 49 |
| 11 | Rationale for BepiColombo Studies of Mercuryâ€™s Surface and Composition. Space Science Reviews, 2020, 216, 1. | 8.1 | 46 |
| 12 | Structural and tidal models of Titan and inferences on cryovolcanism. Journal of Geophysical Research E: Planets, 2014, 119, 1013-1036. | 3.6 | 41 |
| 13 | Ice rheology and tidal heating of Enceladus. Icarus, 2013, 226, 10-19. | 2.5 | 32 |
| 14 | Measuring tidal deformations by laser altimetry. A performance model for the Ganymede Laser Altimeter. Planetary and Space Science, 2015, 117, 184-191. | 1.7 | 31 |
| 15 | Geodesy, Geophysics and Fundamental Physics Investigations of the BepiColombo Mission. Space Science Reviews, 2021, 217, 1. | 8.1 | 25 |
| 16 | Interiors and Evolution of Icy Satellites. , 2015, , 605-635. | | 24 |
| 17 | Viscoelastic Tides of Mercury and the Determination of its Inner Core Size. Journal of Geophysical Research E: Planets, 2018, 123, 2760-2772. | 3.6 | 24 |
| 18 | Stability and evolution of orbits around the binary asteroid 175706 (1996 FG3): Implications for the MarcoPolo-R mission. Planetary and Space Science, 2012, 70, 102-113. | 1.7 | 23 |

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|---|---|---|---|
| 19 | The performance of the BepiColombo Laser Altimeter (BELA) prior launch and prospects for Mercury orbit operations. Planetary and Space Science, 2018, 159, 84-92. | 1.7 | 20 |
| 20 | Review of Exchange Processes on Ganymede in View of Its Planetary Protection Categorization. Astrobiology, 2013, 13, 991-1004. | 3.0 | 16 |
| 21 | Mercuryâ€™s resonant rotation from secular orbital elements. Celestial Mechanics and Dynamical Astronomy, 2015, 123, 263-277. | 1.4 | 16 |
| 22 | Constraints on dissipation in the deep interiors of Ganymede and Europa from tidal phase-lags. Celestial Mechanics and Dynamical Astronomy, 2016, 126, 131-144. | 1.4 | 16 |
| 23 | The surface roughness of Europa derived from Galileo stereo images. Icarus, 2020, 343, 113669. | 2.5 | 15 |
| 24 | Joint Europa Mission (JEM): a multi-scale study of Europa to characterize its habitability and search for extant life. Planetary and Space Science, 2020, 193, 104960. | 1.7 | 15 |
| 25 | The BepiColombo Laser Altimeter. Space Science Reviews, 2021, 217, 1. | 8.1 | 15 |
| 26 | Measuring tidal deformations at Europaâ€™s surface. Advances in Space Research, 2011, 48, 718-724. | 2.6 | 14 |
| 27 | The Ganymede laser altimeter (GALA): key objectives, instrument design, and performance. CEAS Space Journal, 2019, 11, 381-390. | 2.3 | 13 |
| 28 | Spacecraft orbit lifetime within two binary near-Earth asteroid systems. Planetary and Space Science, 2017, 146, 1-9. | 1.7 | 12 |
| 29 | Analysis of one-way laser ranging data to LRO, time transfer and clock characterization. Icarus, 2017, 283, 38-54. | 2.5 | 12 |
| 30 | Prospects for measuring Mercuryâ€™s tidal Love number‹i›h‹/i›‹sub›2‹/sub›with the BepiColombo Laser Altimeter. Astronomy and Astrophysics, 2020, 633, A85. | 5.1 | 11 |
| 31 | The Ganymede Laser Altimeter (GALA) for the Jupiter Icy Moons Explorer (JUICE): Mission, science, and instrumentation of its receiver modules. Advances in Space Research, 2022, 69, 2283-2304. | 2.6 | 10 |
| 32 | Frequency-dependent tidal dissipation in a viscoelastic Saturnian core and expansion of Mimasâ€™ semi-major axis. Astronomy and Astrophysics, 2017, 599, L10. | 5.1 | 9 |
| 33 | Measuring Ganymedeâ€™s Librations with Laser Altimetry. Geosciences (Switzerland), 2019, 9, 320. | 2.2 | 8 |
| 34 | Early resonances of Tethys and Dione: Implications for Ithaca Chasma. Icarus, 2019, 319, 407-416. | 2.5 | 7 |
| 35 | Processing of laser altimeter time-of-flight measurements to geodetic coordinates. Journal of Geodesy, 2021, 95, 1. | 3.6 | 6 |
| 36 | The BepiColombo Laser Altimeter (BELA): a post-launch summary. CEAS Space Journal, 2019, 11, 371-380. | 2.3 | 5 |

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|---|---|---|---|
| 37 | The reference frames of Mercury after the MESSENGER mission. Journal of Geodesy, 2018, 92, 949-961. | 3.6 | 3 |
| 38 | Improvement of orbit determination using laser altimeter crossovers: JUICE mission case study. Acta Astronautica, 2021, 182, 587-598. | 3.2 | 3 |
| 39 | Tidal friction in close-in planets. Proceedings of the International Astronomical Union, 2007, 3, 179-186. | 0.0 | 2 |
| 40 | BELA transmitter performance and pointing stability verification campaign at DLR-PF. Acta Astronautica, 2019, 154, 103-118. | 3.2 | 2 |
| 41 | Geodesy and geophysics of Mercury: Prospects in view of the BepiColombo mission. European Physical Journal: Special Topics, 2020, 229, 1379-1389. | 2.6 | 2 |
| 42 | Periodic orbits for interferometric and tomographic radar imaging of Saturnâ€™s moon Enceladus. Acta Astronautica, 2022, 191, 326-345. | 3.2 | 2 |
| 43 | Orbital evolution of the BepiColombo Mercury Planetary Orbiter (MPO) in the gravity field of Mercury. Planetary and Space Science, 2021, 200, 105195. | 1.7 | 1 |
| 44 | The case for landed Mercury science. Experimental Astronomy, 0, , 1. | 3.7 | 0 |
| 45 | Optical/mechanical design of the focal plane receiver of the Ganymede Laser Altimeter (GALA) for the Jupiter Icy Moons Explorer (JUICE) mission. , 2018, , . | | 0 |
| 46 | Terminator orbits around the triple asteroid 2001-SN263 in application to the deep space mission ASTER. Acta Astronautica, 2022, 198, 631-641. | 3.2 | 0 |