

# Alessandro Mura

## List of Publications by Year in descending order

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Version: 2024-02-01

122  
papers

4,130  
citations

136950

32  
h-index

128289

60  
g-index

153  
all docs

153  
docs citations

153  
times ranked

2871  
citing authors

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 1  | Comparative Na and K Mercury and Moon Exospheres. <i>Space Science Reviews</i> , 2022, 218, 1.   | 8.1  | 12        |
| 2  | Moist convection drives an upscale energy transfer at Jovian high latitudes. <i>Nature Physics</i> , 2022, 18, 357-361.  | 16.7 | 18        |
| 3  | Effects of mercury surface temperature on the sodium abundance in its exosphere. <i>Planetary and Space Science</i> , 2022, 212, 105397.   | 1.7  | 3         |
| 4  | A New Model of Jupiter's Magnetic Field at the Completion of Juno's Prime Mission. <i>Journal of Geophysical Research E: Planets</i> , 2022, 127, .  | 3.6  | 60        |
| 5  | The Case for a New Frontiersâ€“Class Uranus Orbiter: System Science at an Underexplored and Unique World with a Mid-scale Mission. <i>Planetary Science Journal</i> , 2022, 3, 58.   | 3.6  | 12        |
| 6  | A Comprehensive Set of Juno In Situ and Remote Sensing Observations of the Ganymede Auroral Footprint. <i>Geophysical Research Letters</i> , 2022, 49, .   | 4.0  | 8         |
| 7  | The Exosphere as a Boundary: Origin and Evolution of Airless Bodies in the Inner Solar System and Beyond Including Planets with Silicate Atmospheres. <i>Space Science Reviews</i> , 2022, 218, 1.                               | 8.1  | 6         |
| 8  | Stability of the Jupiter Southern Polar Vortices Inspected Through Vorticity Using Juno/JIRAM Data. <i>Journal of Geophysical Research E: Planets</i> , 2022, 127, .   | 3.6  | 3         |
| 9  | Exospheric Na distributions along the Mercury orbit with the THEMIS telescope. <i>Icarus</i> , 2021, 355, 114179.  | 2.5  | 10        |
| 10 | SERENA: Particle Instrument Suite for Determining the Sun-Mercury Interaction from BepiColombo. <i>Space Science Reviews</i> , 2021, 217, 11.  | 8.1  | 26        |
| 11 | Jupiter. , 2021, , 108-122.  |      | 0         |
| 12 | Are Dawn Storms Jupiter's Auroral Substorms?. <i>AGU Advances</i> , 2021, 2, e2020AV000275.  | 5.4  | 25        |
| 13 | On the clouds and ammonia in Jupiterâ€™s upper troposphere from Juno JIRAM reflectivity observations. <i>Monthly Notices of the Royal Astronomical Society</i> , 2021, 503, 4892-4907.   | 4.4  | 5         |
| 14 | Multiscale Features of the Near-Hermean Environment as Derived Through the Hilbert-Huang Transform. <i>Frontiers in Physics</i> , 2021, 9, .   | 2.1  | 4         |
| 15 | Oscillations and Stability of the Jupiter Polar Cyclones. <i>Geophysical Research Letters</i> , 2021, 48, e2021GL094235.   | 4.0  | 11        |
| 16 | A Preliminary Study of Magnetosphereâ€™Ionosphereâ€™Thermosphere Coupling at Jupiter: Juno Multiâ€™Instrument Measurements and Modeling Tools. <i>Journal of Geophysical Research: Space Physics</i> , 2021, 126, e2021JA029469. | 2.4  | 11        |
| 17 | Morphology of the Auroral Tail of Io, Europa, and Ganymede From JIRAM Lâ€™Band Imager. <i>Journal of Geophysical Research: Space Physics</i> , 2021, 126, e2021JA029450.   | 2.4  | 15        |
| 18 | Infrared observations of Io from Juno. <i>Icarus</i> , 2020, 341, 113607.  | 2.5  | 23        |

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|----|---|------|-----------|
| 19 | Juno/JIRAM: Planning and commanding activities. <i>Advances in Space Research</i> , 2020, 65, 598-615.  | 2.6  | 5         |
| 20 | Deep neural networks for analysis of Mercury's planetary exosphere. <i>Journal of Physics: Conference Series</i> , 2020, 1548, 012014.  | 0.4  | 0         |
| 21 | Turbulence Power Spectra in Regions Surrounding Jupiter's South Polar Cyclones From Juno/JIRAM. <i>Journal of Geophysical Research E: Planets</i> , 2020, 125, e2019JE006096.             | 3.6  | 8         |
| 22 | Investigating Mercury's Environment with the Two-Spacecraft BepiColombo Mission. <i>Space Science Reviews</i> , 2020, 216, 1.   | 8.1  | 71        |
| 23 | Mapping Io's Surface Composition With Juno/JIRAM. <i>Journal of Geophysical Research E: Planets</i> , 2020, 125, e2020JE006522.   | 3.6  | 8         |
| 24 | Jupiter's Equatorial Plumes and Hot Spots: Spectral Mapping from Gemini/TEXES and Juno/MWR. <i>Journal of Geophysical Research E: Planets</i> , 2020, 125, e2020JE006399.                 | 3.6  | 13        |
| 25 | Infrared Observations of Ganymede From the Jovian InfraRed Auroral Mapper on Juno. <i>Journal of Geophysical Research E: Planets</i> , 2020, 125, e2020JE006508.                          | 3.6  | 16        |
| 26 | Two-Year Observations of the Jupiter Polar Regions by JIRAM on Board Juno. <i>Journal of Geophysical Research E: Planets</i> , 2020, 125, e2019JE006098.                                  | 3.6  | 24        |
| 27 | Ganymede's gravity, tides and rotational state from JUICE's 3GM experiment simulation. <i>Planetary and Space Science</i> , 2020, 187, 104902.  | 1.7  | 22        |
| 28 | Preliminary estimation of the detection possibilities of Ganymede's water vapor environment with MAJIS. <i>Planetary and Space Science</i> , 2020, 191, 105004.                           | 1.7  | 5         |
| 29 | On the Spatial Distribution of Minor Species in Jupiter's Troposphere as Inferred From Juno JIRAM Data. <i>Journal of Geophysical Research E: Planets</i> , 2020, 125, e2019JE006206.     | 3.6  | 14        |
| 30 | Kinetic Simulations of the Jovian Energetic Ion Circulation around Ganymede. <i>Astrophysical Journal</i> , 2020, 900, 74.  | 4.5  | 20        |
| 31 | JUNO/JIRAM's view of Jupiter's H <sub>3</sub> <sup>+</sup> emissions. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2019, 377, 20180406. | 3.4  | 10        |
| 32 | H <sub>3</sub> <sup>+</sup> characteristics in the Jupiter atmosphere as observed at limb with Juno/JIRAM. <i>Icarus</i> , 2019, 329, 132-139.  | 2.5  | 11        |
| 33 | Serendipitous infrared observations of Europa by Juno/JIRAM. <i>Icarus</i> , 2019, 328, 1-13.   | 2.5  | 15        |
| 34 | Clusters of cyclones encircling Jupiter's poles. <i>Nature</i> , 2018, 555, 216-219.  | 27.8 | 90        |
| 35 | The contribution of the ARIEL space mission to the study of planetary formation. <i>Experimental Astronomy</i> , 2018, 46, 45-65.   | 3.7  | 19        |
| 36 | Mercury sodium exospheric emission as a proxy for solar perturbations transit. <i>Scientific Reports</i> , 2018, 8, 928.  | 3.3  | 30        |

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|----|--|------|-----------|
| 37 | Towards a Global Unified Model of Europa's Tenuous Atmosphere. <i>Space Science Reviews</i> , 2018, 214, 1.  | 8.1  | 36        |
| 38 | Characterization of Mesoscale Waves in the Jupiter NEB by Jupiter InfraRed Auroral Mapper on board Juno. <i>Astronomical Journal</i> , 2018, 156, 246.   | 4.7  | 5         |
| 39 | A chemical survey of exoplanets with ARIEL. <i>Experimental Astronomy</i> , 2018, 46, 135-209.   | 3.7  | 249       |
| 40 | Concurrent ultraviolet and infrared observations of the north Jovian aurora during Juno's first perijove. <i>Icarus</i> , 2018, 312, 145-156.  | 2.5  | 18        |
| 41 | Juno observations of spot structures and a split tail in Io-induced aurorae on Jupiter. <i>Science</i> , 2018, 361, 774-777.   | 12.6 | 53        |
| 42 | First Estimate of Wind Fields in the Jupiter Polar Regions From JIRAM's Juno Images. <i>Journal of Geophysical Research E: Planets</i> , 2018, 123, 1511-1524.   | 3.6  | 24        |
| 43 | JIRAM, the Jovian Infrared Auroral Mapper. <i>Space Science Reviews</i> , 2017, 213, 393-446.  | 8.1  | 91        |
| 44 | Investigation of the possible effects of comet Encke's meteoroid stream on the Ca exosphere of Mercury. <i>Journal of Geophysical Research E: Planets</i> , 2017, 122, 1217-1226.  | 3.6  | 11        |
| 45 | Multiple-wavelength sensing of Jupiter during the Juno mission's first perijove passage. <i>Geophysical Research Letters</i> , 2017, 44, 4607-4614.  | 4.0  | 14        |
| 46 | Jupiter's interior and deep atmosphere: The initial pole-to-pole passes with the Juno spacecraft. <i>Science</i> , 2017, 356, 821-825.   | 12.6 | 229       |
| 47 | Jupiter's magnetosphere and aurorae observed by the Juno spacecraft during its first polar orbits. <i>Science</i> , 2017, 356, 826-832.  | 12.6 | 109       |
| 48 | Infrared observations of Jovian aurora from Juno's first orbits: Main oval and satellite footprints. <i>Geophysical Research Letters</i> , 2017, 44, 5308-5316.  | 4.0  | 30        |
| 49 | Preliminary results on the composition of Jupiter's troposphere in hot spot regions from the JIRAM/Juno instrument. <i>Geophysical Research Letters</i> , 2017, 44, 4615-4624.   | 4.0  | 20        |
| 50 | Preliminary JIRAM results from Juno polar observations: 2. Analysis of the Jupiter southern H <sub>3</sub> <sup>+</sup> emissions and comparison with the north aurora. <i>Geophysical Research Letters</i> , 2017, 44, 4633-4640. | 4.0  | 20        |
| 51 | Preliminary JIRAM results from Juno polar observations: 1. Methodology and analysis applied to the Jovian northern polar region. <i>Geophysical Research Letters</i> , 2017, 44, 4625-4632.  | 4.0  | 18        |
| 52 | Characterization of the white ovals on Jupiter's southern hemisphere using the first data by the Juno/JIRAM instrument. <i>Geophysical Research Letters</i> , 2017, 44, 4660-4668.   | 4.0  | 15        |
| 53 | Observations of MeV electrons in Jupiter's innermost radiation belts and polar regions by the Juno radiation monitoring investigation: Perijoves 1 and 3. <i>Geophysical Research Letters</i> , 2017, 44, 4481-4488.               | 4.0  | 29        |
| 54 | Preliminary JIRAM results from Juno polar observations: 3. Evidence of diffuse methane presence in the Jupiter auroral regions. <i>Geophysical Research Letters</i> , 2017, 44, 4641-4648.   | 4.0  | 13        |

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|----|--|-----|-----------|
| 55 | Plasma and Fields Evaluation at the Chinese Seismo-Electromagnetic Satellite for Electric Field Detector Measurements. IEEE Access, 2017, 5, 3824-3833.                                    | 4.2 | 9         |
| 56 | Electric field computation analysis for the Electric Field Detector (EFD) on board the China Seismic-Electromagnetic Satellite (CSES). Advances in Space Research, 2017, 60, 2206-2216.    | 2.6 | 6         |
| 57 | Analysis of IR-bright regions of Jupiter in JIRAM-Juno data: Methods and validation of algorithms. Journal of Quantitative Spectroscopy and Radiative Transfer, 2017, 202, 200-209.        | 2.3 | 8         |
| 58 | The Juno Radiation Monitoring (RM) Investigation. Space Science Reviews, 2017, 213, 507-545.   | 8.1 | 29        |
| 59 | Short-term observations of double-peaked Na emission from Mercury's exosphere. Geophysical Research Letters, 2017, 44, 2970-2977.  | 4.0 | 17        |
| 60 | The Juno Radiation Monitoring (RM) Investigation. , 2017, , 385-423.   |     | 0         |
| 61 | Mapping of hydrocarbons and H <sub>3</sub> <sup>+</sup> emissions at Jupiter's north pole using Galileo/NIMS data. Geophysical Research Letters, 2016, 43, 11,558.                         | 4.0 | 7         |
| 62 | Juno's Earth flyby: the Jovian infrared Auroral Mapper preliminary results. Astrophysics and Space Science, 2016, 361, 1.  | 1.4 | 14        |
| 63 | Analytical model of Europa's O <sub>2</sub> exosphere. Planetary and Space Science, 2016, 130, 3-13.   | 1.7 | 9         |
| 64 | 3D-modeling of Mercury's solar wind sputtered surface-exosphere environment. Planetary and Space Science, 2015, 115, 90-101.   | 1.7 | 36        |
| 65 | The H <sub>2</sub> O and O <sub>2</sub> exospheres of Ganymede: The result of a complex interaction between the jovian magnetospheric ions and the icy moon. Icarus, 2015, 245, 306-319.   | 2.5 | 52        |
| 66 | The influence of space environment on the evolution of Mercury. Icarus, 2014, 239, 281-290.  | 2.5 | 12        |
| 67 | ELENA microchannel plate detector: absolute detection efficiency for low energy neutral atoms. Optical Engineering, 2013, 52, 051206.  | 1.0 | 4         |
| 68 | Exospheric O <sub>2</sub> densities at Europa during different orbital phases. Planetary and Space Science, 2013, 88, 42-52.   | 1.7 | 40        |
| 69 | Energetic neutral particles detection in the environment of Jupiter's icy moons: Ganymede's and Europa's neutral imaging experiment (GENIE). Planetary and Space Science, 2013, 88, 53-63. | 1.7 | 6         |
| 70 | Dynamical evolution of sodium anisotropies in the exosphere of Mercury. Planetary and Space Science, 2013, 82-83, 1-10.  | 1.7 | 22        |
| 71 | ELENA MCP detector: absolute detection efficiency for low-energy neutral atoms. Proceedings of SPIE, 2012, , .   | 0.8 | 2         |
| 72 | The role of sputtering and radiolysis in the generation of Europa exosphere. Icarus, 2012, 218, 956-966.   | 2.5 | 54        |

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|----|---|-----|-----------|
| 73 | Loss rates and time scales for sodium at Mercury. Planetary and Space Science, 2012, 63-64, 2-7.  | 1.7 | 15        |
| 74 | Observing planets and small bodies in sputtered high-energy atom fluxes. Journal of Geophysical Research, 2011, 116, n/a-n/a.   | 3.3 | 7         |
| 75 | Constraints on the exosphere of CoRoT-7b. Astronomy and Astrophysics, 2011, 525, A24.   | 5.1 | 28        |
| 76 | Exosphere generation of the Moon investigated through a high-energy neutral detector. Experimental Astronomy, 2011, 32, 37-49.  | 3.7 | 2         |
| 77 | Exospheres and Energetic Neutral Atoms of Mars, Venus and Titan. Space Science Reviews, 2011, 162, 213-266.   | 8.1 | 25        |
| 78 | Comet-like tail-formation of exospheres of hot rocky exoplanets: Possible implications for CoRoT-7b. Icarus, 2011, 211, 1-9.  | 2.5 | 69        |
| 79 | A nanotechnology application for low energy neutral atom detection with high angular resolution for the BepiColombo mission to Mercury. Microelectronic Engineering, 2011, 88, 2330-2333. | 2.4 | 6         |
| 80 | Report to cross sections related to plasma-planetary atmosphere interaction processes. Planetary and Space Science, 2011, 59, 801-809.  | 1.7 | 3         |
| 81 | Exospheres and Energetic Neutral Atoms of Mars, Venus and Titan. Space Sciences Series of ISSI, 2011, , 213-266.  | 0.0 | 0         |
| 82 | Exoplanet discoveries with the CoRoT space observatory. Solar System Research, 2010, 44, 520-526.   | 0.7 | 4         |
| 83 | The BepiColombo mission: An outstanding tool for investigating the Hermean environment. Planetary and Space Science, 2010, 58, 40-60.   | 1.7 | 43        |
| 84 | Neutral particle release from Europa's surface. Icarus, 2010, 210, 385-395.   | 2.5 | 42        |
| 85 | Venusian bow shock as seen by the ASPERA-4 ion instrument on Venus Express. Journal of Geophysical Research, 2010, 115, .   | 3.3 | 9         |
| 86 | Low energy high angular resolution neutral atom detection by means of micro-shuttering techniques: the BepiColombo SERENA-ELENA sensor. , 2009, , .                                       |     | 7         |
| 87 | Coordinated Study on Solar Wind Turbulence During the Venus-Express, ACE and Ulysses Alignment of August 2007. Earth, Moon and Planets, 2009, 104, 101-104.                               | 0.6 | 23        |
| 88 | The sodium exosphere of Mercury: Comparison between observations during Mercury's transit and model results. Icarus, 2009, 200, 1-11.   | 2.5 | 80        |
| 89 | Statistical analysis of the observations of the MEX/ASPERA-3 NPI in the shadow. Planetary and Space Science, 2009, 57, 1000-1007.   | 1.7 | 7         |
| 90 | Space weathering on near-Earth objects investigated by neutral-particle detection. Planetary and Space Science, 2009, 57, 384-392.  | 1.7 | 6         |

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|-----|--|------|-----------|
| 91  | PROSPECTS OF SOLAR SYSTEM ENVIRONMENT OBSERVATIONS BY MEANS OF ENA DETECTION. , 2009, , 263-291.   |      | 1         |
| 92  | Location of the bow shock and ion composition boundaries at Venus's initial determinations from Venus Express ASPERA-4. Planetary and Space Science, 2008, 56, 780-784.  | 1.7  | 64        |
| 93  | The Venusian induced magnetosphere: A case study of plasma and magnetic field measurements on the Venus Express mission. Planetary and Space Science, 2008, 56, 796-801. | 1.7  | 22        |
| 94  | Mars Express and Venus Express multi-point observations of geoeffective solar flare events in December 2006. Planetary and Space Science, 2008, 56, 873-880.             | 1.7  | 102       |
| 95  | Ionospheric photoelectrons at Venus: Initial observations by ASPERA-4 ELS. Planetary and Space Science, 2008, 56, 802-806.   | 1.7  | 48        |
| 96  | First observation of energetic neutral atoms in the Venus environment. Planetary and Space Science, 2008, 56, 807-811.   | 1.7  | 19        |
| 97  | Comparative analysis of Venus and Mars magnetotails. Planetary and Space Science, 2008, 56, 812-817.   | 1.7  | 48        |
| 98  | ENA detection in the dayside of Mars: ASPERA-3 NPD statistical study. Planetary and Space Science, 2008, 56, 840-845.  | 1.7  | 18        |
| 99  | On the impact of multiply charged heavy solar wind ions on the surface of Mercury, the Moon and Ceres. Planetary and Space Science, 2008, 56, 1506-1516.                 | 1.7  | 27        |
| 100 | Processes that Promote and Deplete the Exosphere of Mercury. Space Sciences Series of ISSI, 2008, , 251-327.   | 0.0  | 2         |
| 101 | Numerical simulations of coronal hole-associated neutral solar wind as expected at the Solar Orbiter position. Journal of Geophysical Research, 2007, 112, n/a-n/a.      | 3.3  | 3         |
| 102 | The contribution of impulsive meteoritic impact vapourization to the Hermean exosphere. Planetary and Space Science, 2007, 55, 1541-1556.                                | 1.7  | 48        |
| 103 | Numerical and analytical model of Mercury's exosphere: Dependence on surface and external conditions. Planetary and Space Science, 2007, 55, 1569-1583.                  | 1.7  | 40        |
| 104 | Modelling Mercury's magnetosphere and plasma entry through the dayside magnetopause. Planetary and Space Science, 2007, 55, 1557-1568.                                   | 1.7  | 29        |
| 105 | The Analyser of Space Plasmas and Energetic Atoms (ASPERA-4) for the Venus Express mission. Planetary and Space Science, 2007, 55, 1772-1792.                            | 1.7  | 214       |
| 106 | The loss of ions from Venus through the plasma wake. Nature, 2007, 450, 650-653.   | 27.8 | 168       |
| 107 | The Analyzer of Space Plasmas and Energetic Atoms (ASPERA-3) for the Mars Express Mission. Space Science Reviews, 2007, 126, 113-164.                                    | 8.1  | 241       |
| 108 | Processes that Promote and Deplete the Exosphere of Mercury. Space Science Reviews, 2007, 132, 433-509.  | 8.1  | 121       |

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|-----|---|------|-----------|
| 109 | The Analyzer of Space Plasmas and Energetic Atoms (ASPERA-3) for the Mars Express Mission. , 2007, , 113-164.   |      | 2         |
| 110 | Geomagnetic activity dependence of the inner magnetospheric proton distribution: An empirical approach for the 21 <sup>st</sup> April 2001 storm. Journal of Geophysical Research, 2006, 111, . | 3.3  | 4         |
| 111 | Neutral atom imaging at Mercury. Planetary and Space Science, 2006, 54, 144-152.  | 1.7  | 15        |
| 112 | NEUTRAL ATOM EMISSION FROM MERCURY. , 2006, , 37-50.  |      | 3         |
| 113 | THE DAYSIDE MAGNETOSPHERE OF MERCURY. , 2006, , 29-36.  |      | 0         |
| 114 | Dayside H <sup>+</sup> circulation at Mercury and neutral particle emission. Icarus, 2005, 175, 305-319.  | 2.5  | 39        |
| 115 | Surface-Exosphere-Magnetosphere System Of Mercury. Space Science Reviews, 2005, 117, 397-443.   | 8.1  | 76        |
| 116 | Solar Wind-Induced Atmospheric Erosion at Mars: First Results from ASPERA-3 on Mars Express. Science, 2004, 305, 1933-1936.   | 12.6 | 204       |
| 117 | Modeling the time-evolving plasma in the inner magnetosphere: An empirical approach. Journal of Geophysical Research, 2004, 109, .  | 3.3  | 7         |
| 118 | Mapping of the cusp plasma precipitation on the surface of Mercury. Icarus, 2003, 166, 229-237.   | 2.5  | 83        |
| 119 | Empirical model of proton fluxes in the equatorial inner magnetosphere: 2. Properties and applications. Journal of Geophysical Research, 2003, 108, .   | 3.3  | 17        |
| 120 | A quantitative model of the planetary Na <sup>+</sup> contribution to Mercury's magnetosphere. Annales Geophysicae, 2003, 21, 1723-1736.  | 1.6  | 106       |
| 121 | Energetic neutral atoms at Mars 2. Imaging of the solar wind-Phobos interaction. Journal of Geophysical Research, 2002, 107, SSH 5-1.   | 3.3  | 23        |
| 122 | Empirical Model of the Inner Magnetosphere H <sup>+</sup> Pitch Angle Distributions. Geophysical Monograph Series, 0, , 283-291.  | 0.1  | 7         |