# Maria Teresa Capria

List of Publications by Year
in descending order



| | | | |
|---|---|---|---|
| 91 papers | 4,620 citations | 101543<br>36 h-index | 102487<br>66 g-index |
| 92 all docs | 92 docs citations | 92 times ranked | 2512 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | The organic-rich surface of comet 67P/Churyumov-Gerasimenko as seen by VIRTIS/Rosetta. Science, 2015, 347, aaa0628. | 12.6 | 293 |
| 2 | Ammoniated phyllosilicates with a likely outer Solar System origin on (1) Ceres. Nature, 2015, 528, 241-244. | 27.8 | 276 |
| 3 | Spectroscopic Characterization of Mineralogy and Its Diversity Across Vesta. Science, 2012, 336, 697-700. | 12.6 | 240 |
| 4 | Bright carbonate deposits as evidence of aqueous alteration on (1) Ceres. Nature, 2016, 536, 54-57. | 27.8 | 240 |
| 5 | The VIR Spectrometer. Space Science Reviews, 2011, 163, 329-369. | 8.1 | 217 |
| 6 | The diurnal cycle of water ice on comet 67P/Churyumovâ€“Gerasimenko. Nature, 2015, 525, 500-503. | 27.8 | 199 |
| 7 | Virtis: An Imaging Spectrometer for the Rosetta Mission. Space Science Reviews, 2007, 128, 529-559. | 8.1 | 181 |
| 8 | Distribution of phyllosilicates on the surface of Ceres. Science, 2016, 353, . | 12.6 | 159 |
| 9 | Localized aliphatic organic material on the surface of Ceres. Science, 2017, 355, 719-722. | 12.6 | 152 |
| 10 | Dark material on Vesta from the infall of carbonaceous volatile-rich material. Nature, 2012, 491, 83-86. | 27.8 | 151 |
| 11 | Refractory and semi-volatile organics at the surface of comet 67P/Churyumov-Gerasimenko: Insights from the VIRTIS/Rosetta imaging spectrometer. Icarus, 2016, 272, 32-47. | 2.5 | 127 |
| 12 | DETECTION OF WIDESPREAD HYDRATED MATERIALS ON VESTA BY THE VIR IMAGING SPECTROMETER ON BOARD THE <i>DAWN</i> MISSION. Astrophysical Journal Letters, 2012, 758, L36. | 8.3 | 117 |
| 13 | Exposed water ice on the nucleus of comet 67P/Churyumovâ€“Gerasimenko. Nature, 2016, 529, 368-372. | 27.8 | 104 |
| 14 | Pitted Terrain on Vesta and Implications for the Presence of Volatiles. Science, 2012, 338, 246-249. | 12.6 | 91 |
| 15 | Nature, formation, and distribution of carbonates on Ceres. Science Advances, 2018, 4, e1701645. | 10.3 | 83 |
| 16 | Olivine in an unexpected location on Vestaâ€™s surface. Nature, 2013, 504, 122-125. | 27.8 | 82 |
| 17 | TandEM: Titan and Enceladus mission. Experimental Astronomy, 2009, 23, 893-946. | 3.7 | 77 |
| 18 | Evolution of CO<sub>2</sub>, CH<sub>4</sub>, and OCS abundances relative to H<sub>2</sub>O in the coma of comet 67P around perihelion from<i>Rosetta</i>/VIRTIS-H observations. Monthly Notices of the Royal Astronomical Society, 2016, 462, S170-S183. | 4.4 | 72 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Thermal Evolution and Differentiation of Edgewortha€“Kuiper Belt Objects. Astronomical Journal, 2001, 121, 2792-2799. | 4.7 | 68 |
| 20 | Detection of exposed H<sub>2</sub>O ice on the nucleus of comet 67P/Churyumov-Gerasimenko. Astronomy and Astrophysics, 2016, 595, A102. | 5.1 | 67 |
| 21 | Interpretation of thermal emission. I. The effect of roughness for spatially resolved atmosphereless bodies. Icarus, 2015, 252, 1-21. | 2.5 | 62 |
| 22 | Water and carbon dioxide distribution in the 67P/Churyumov-Gerasimenko coma from VIRTIS-M infrared observations. Astronomy and Astrophysics, 2016, 589, A45. | 5.1 | 62 |
| 23 | Mineralogical characterization of some basaltic asteroids in the neighborhood of (4) Vesta: first results. Icarus, 2004, 171, 120-132. | 2.5 | 61 |
| 24 | Investigation into the disparate origin of CO2 and H2O outgassing for Comet 67/P. Icarus, 2016, 277, 78-97. | 2.5 | 61 |
| 25 | Seasonal exposure of carbon dioxide ice on the nucleus of comet 67P/Churyumov-Gerasimenko. Science, 2016, 354, 1563-1566. | 12.6 | 61 |
| 26 | Comet 67P outbursts and quiescent coma at 1.3 au from the Sun: dust properties from Rosetta/VIRTIS-H observations. Monthly Notices of the Royal Astronomical Society, 2017, 469, S443-S458. | 4.4 | 56 |
| 27 | Asteroid Thermophysical Modeling. , 2015, , . | | 55 |
| 28 | Thermal measurements of dark and bright surface features on Vesta as derived from Dawn/VIR. Icarus, 2014, 240, 36-57. | 2.5 | 52 |
| 29 | Spin Temperatures of Ammonia and Water Molecules in Comets. Astrophysical Journal, 2004, 601, 1152-1158. | 4.5 | 51 |
| 30 | SIMBIO-SYS: Scientific Cameras and Spectrometer for the BepiColombo Mission. Space Science Reviews, 2020, 216, 1. | 8.1 | 47 |
| 31 | Vesta surface thermal properties map. Geophysical Research Letters, 2014, 41, 1438-1443. | 4.0 | 46 |
| 32 | Variations in the amount of water ice on Ceresâ€™ surface suggest a seasonal water cycle. Science Advances, 2018, 4, eaao3757. | 10.3 | 43 |
| 33 | Thermal inertia and roughness of the nucleus of comet 67P/Churyumovâ€“Gerasimenko from MIRO and VIRTIS observations. Astronomy and Astrophysics, 2018, 616, A122. | 5.1 | 42 |
| 34 | Composition and mineralogy of dark material units on Vesta. Icarus, 2014, 240, 58-72. | 2.5 | 41 |
| 35 | Shape and obliquity effects on the thermal evolution of the Rosetta target 67P/Churyumov-Gerasimenko cometary nucleus. Icarus, 2010, 207, 341-358. | 2.5 | 38 |
| 36 | Spectral and mineralogical characterization of inner main-belt V-type asteroids. Astronomy and Astrophysics, 2011, 533, A77. | 5.1 | 38 |

| # | Article | IF | Citations |
|---|---|---|---|
| 37 | Detection of new olivine-rich locations on Vesta. Icarus, 2015, 258, 120-134. | 2.5 | 37 |
| 38 | Ceres water regime: surface temperature, water sublimation and transient exo(atmo)sphere. Monthly Notices of the Royal Astronomical Society, 2016, 455, 1892-1904. | 4.4 | 35 |
| 39 | Thermal evolution modelÂof 67P/Churyumov-Gerasimenko, theÂnew Rosetta target. Astronomy and Astrophysics, 2005, 444, 605-614. | 5.1 | 35 |
| 40 | The changing temperature of the nucleus of comet 67P induced by morphological and seasonal effects. Nature Astronomy, 2019, 3, 649-658. | 10.1 | 34 |
| 41 | Thermal evolution and differentiation of a short-period comet. Planetary and Space Science, 1993, 41, 409-427. | 1.7 | 33 |
| 42 | Detections and geologic context of local enrichments in olivine on Vesta with VIR/Dawn data. Journal of Geophysical Research E: Planets, 2014, 119, 2078-2108. | 3.6 | 33 |
| 43 | Compositional differences among Bright Spots on the Ceres surface. Icarus, 2019, 320, 202-212. | 2.5 | 33 |
| 44 | Exploring the asteroid belt with ion propulsion: Dawn mission history, status and plans. Advances in Space Research, 2007, 40, 193-201. | 2.6 | 32 |
| 45 | Mineralogical characterization of some V-type asteroids, in support of the NASAâ€,Dawnâ€,missionâ˜.... Monthly Notices of the Royal Astronomical Society, 2011, 412, 2318-2332. | 4.4 | 30 |
| 46 | The activity of main belt comets. Astronomy and Astrophysics, 2012, 537, A71. | 5.1 | 27 |
| 47 | Spectral analysis of the bright materials on the asteroid Vesta. Icarus, 2014, 240, 73-85. | 2.5 | 26 |
| 48 | How pristine is the interior of the comet 67P/Churyumovâ€"Gerasimenko?. Monthly Notices of the Royal Astronomical Society, 2017, 469, S685-S694. | 4.4 | 22 |
| 49 | Mineralogy and temperature of crater Haulani on Ceres. Meteoritics and Planetary Science, 2018, 53, 1902-1924. | 1.6 | 21 |
| 50 | O($^{mathsf 1}$S) and O($^{mathsf 1}$D) emission lines in the spectrum of 153P/2002 C1 (Ikeya-Zhang). Astronomy and Astrophysics, 2005, 442, 1121-1126. | 5.1 | 20 |
| 51 | Macro and micro structures of pebble-made cometary nuclei reconciled by seasonal evolution. Nature Astronomy, 2022, 6, 546-553. | 10.1 | 20 |
| 52 | C/1995 O1 Haleâ€"Bopp: Short and Long Distance activity from a Theoretical Model. Earth, Moon and Planets, 2002, 90, 217-225. | 0.6 | 18 |
| 53 | Modelling of cometary nuclei: Planetary missions preparation. Advances in Space Research, 2003, 31, 2543-2553. | 2.6 | 17 |
| 54 | Catalog of the emission lines in the visible spectrum of comet 153P/Ikeya-Zhang. Astronomy and Astrophysics, 2007, 461, 789-792. | 5.1 | 17 |

| # | Article | IF | Citations |
|---|---|---|---|
| 55 | VIRTIS-H observations of the dust coma of comet 67P/Churyumov-Gerasimenko: spectral properties and color temperature variability with phase and elevation. Astronomy and Astrophysics, 2019, 630, A22. | 5.1 | 17 |
| 56 | Photometry of Ceres and Occator faculae as inferred from VIR/Dawn data. Icarus, 2019, 320, 97-109. | 2.5 | 17 |
| 57 | MA_MISS: Mars multispectral imager for subsurface studies. Advances in Space Research, 2001, 28, 1203-1208. | 2.6 | 16 |
| 58 | P/Wirtanen thermal evolution: effects due to the presence of an organic component in the refractory material. Planetary and Space Science, 2001, 49, 907-918. | 1.7 | 16 |
| 59 | Photometric behaviour of 67P/Churyumovâ€"Gerasimenko and analysis of its pre-perihelion diurnal variations. Monthly Notices of the Royal Astronomical Society, 2017, 469, S346-S356. | 4.4 | 16 |
| 60 | Exocomets from a Solar System Perspective. Publications of the Astronomical Society of the Pacific, 2020, 132, 101001. | 3.1 | 16 |
| 61 | Sublimation Mechanisms of Comet Nuclei. Earth, Moon and Planets, 2000, 89, 161-178. | 0.6 | 15 |
| 62 | SEASONAL EFFECTS ON COMET NUCLEI EVOLUTION: ACTIVITY, INTERNAL STRUCTURE, AND DUST MANTLE FORMATION. Astronomical Journal, 2010, 140, 1-13. | 4.7 | 14 |
| 63 | The temporal evolution of exposed water ice-rich areas on the surface of 67P/Churyumov-Gerasimenko: spectral analysis. Monthly Notices of the Royal Astronomical Society, 0, , stw3281. | 4.4 | 13 |
| 64 | Compositional evidence of magmatic activity on Vesta. Geophysical Research Letters, 2014, 41, 3038-3044. | 4.0 | 12 |
| 65 | Cometary coma dust size distribution from in situ IR spectra. Monthly Notices of the Royal Astronomical Society, 2017, 469, S598-S605. | 4.4 | 12 |
| 66 | Planetary Science Virtual Observatory architecture. Astronomy and Computing, 2014, 7-8, 71-80. | 1.7 | 10 |
| 67 | Diurnal variation of dust and gas production in comet 67P/Churyumov-Gerasimenko at the inbound equinox as seen by OSIRIS and VIRTIS-M on board Rosetta. Astronomy and Astrophysics, 2019, 630, A23. | 5.1 | 9 |
| 68 | High Thermal Inertia Zones on Ceres From Dawn Data. Journal of Geophysical Research E: Planets, 2020, 125, e2018JE005733. | 3.6 | 9 |
| 69 | Models of P/Borrelly: Activity and dust mantle formation. Advances in Space Research, 2003, 31, 2519-2525. | 2.6 | 8 |
| 70 | 67P/Churyumovâ€"Gerasimenko nucleus model: Portrayal of the Rosetta target. Advances in Space Research, 2006, 38, 1906-1910. | 2.6 | 8 |
| 71 | The SSDC contribution to the improvement of knowledge by means of 3D data projections of minor bodies. Advances in Space Research, 2018, 62, 2306-2316. | 2.6 | 8 |
| 72 | Analysis of night-side dust activity on comet 67P observed by VIRTIS-M: a new method to constrain the thermal inertia on the surface. Astronomy and Astrophysics, 2019, 630, A21. | 5.1 | 8 |

| # | Article | IF | Citations |
|---|---|---|---|
| 73 | 67P/Churyumovâ€"Gerasimenko active areas before perihelion identified by GIADA and VIRTIS data fusion. Monthly Notices of the Royal Astronomical Society, 2019, 483, 2165-2176. | 4.4 | 8 |
| 74 | Mineralogical mapping of the Kerwan quadrangle on Ceres. Icarus, 2019, 318, 188-194. | 2.5 | 8 |
| 75 | Mapping the elemental composition of Ceres and Vesta: Dawn"s gamma ray and neutron detector. , 2004, , . | | 7 |
| 76 | Investigating the Rosetta/RTOF observations of comet 67P/Churyumov-Gerasimenko using a comet nucleus model: influence of dust mantle and trapped CO. Astronomy and Astrophysics, 2020, 638, A106. | 5.1 | 7 |
| 77 | V-type asteroids: A mineralogical study. Advances in Space Research, 2006, 38, 1987-1990. | 2.6 | 6 |
| 78 | Thermal modeling of the active Centaur P/2004 A1 (LONEOS). Astronomy and Astrophysics, 2009, 504, 249-258. | 5.1 | 6 |
| 79 | Separation of thermal inertia and roughness effects from Dawn/VIR measurements of Vesta surface temperatures in the vicinity of Marcia Crater. Icarus, 2015, 262, 30-43. | 2.5 | 6 |
| 80 | SIMBIO-SYS/STC stereo camera calibration: Geometrical distortion. Review of Scientific Instruments, 2019, 90, 043106. | 1.3 | 6 |
| 81 | Mineralogy of the Urvaraâ€"Yalode region on Ceres. Icarus, 2019, 318, 241-250. | 2.5 | 6 |
| 82 | MARS-IRMA: in-situ infrared microscope analysis of Martian soil and rock samples.. Advances in Space Research, 2001, 28, 1219-1224. | 2.6 | 5 |
| 83 | A model of the activity of comet wild 2. Advances in Space Research, 2002, 29, 709-714. | 2.6 | 5 |
| 84 | Performance evaluation of the SIMBIO-SYS Stereo Imaging Channel on board BepiColombo/ESA spacecraft. Measurement: Journal of the International Measurement Confederation, 2019, 135, 828-835. | 5.0 | 5 |
| 85 | The VIR Spectrometer. , 2010, , 329-369. | | 4 |
| 86 | Data mining and visualization from planetary missions: the VESPA-Europlanet2020 activity. Proceedings of the International Astronomical Union, 2016, 12, 316-319. | 0.0 | 2 |
| 87 | Numerical simulations of the radiance from the comet 46P/Wirtanen in the various configurations of the measurements during â€œRosettaâ€•mission. Advances in Space Research, 2003, 31, 2501-2510. | 2.6 | 1 |
| 88 | The interior of outer Solar System bodies. Proceedings of the International Astronomical Union, 2005, 1, 395-411. | 0.0 | 1 |
| 89 | Development of a simulator of the SIMBIOSYS suite onboard the BepiColombo mission. Monthly Notices of the Royal Astronomical Society, 2020, 491, 1673-1689. | 4.4 | 1 |
| 90 | IDIS Small Bodies and Dust Node: Technical innovation and science. Advances in Space Research, 2015, 55, 747-752. | 2.6 | 0 |

| # | Article | IF | Citations |
|---|---|---|---|
| 91 | Thermal inertia of Occator's faculae on Ceres. Planetary and Space Science, 2021, 205, 105285. | 1.7 | 0 |