Ronan Modolo

List of Publications by Year
in descending order

57 papers	2,486 citations	201575 27 h-index	197736 49 g-index
70 all docs	70 docs citations	70 times ranked	1470 citing authors

#	Article	IF	Citations
1	Ion density and phase space density distribution of planetary ions Na+, O+ and He+ in Mercuryâ€™s magnetosphere. Icarus, 2022, 372, 114734.	1.1	4
2	Modeling the Impact of a Strong Xâ€Class Solar Flare on the Planetary Ion Composition in Mercury's Magnetosphere. Geophysical Research Letters, 2022, 49, .	1.5	1
3	Seasonal variations of Mg and Ca in the exosphere of Mercury. Icarus, 2022, 384, 115081.	1.1	1
4	LatHyS global hybrid simulation of the BepiColombo second Venus flyby. Planetary and Space Science, 2022, 218, 105499.	0.9	2
5	Automated Multi-Dataset Analysis (AMDA): An on-line database and analysis tool for heliospheric and planetary plasma data. Planetary and Space Science, 2021, 201, 105214.	0.9	24
6	Induced Magnetic Fields and Plasma Motions in the Inner Part of the Martian Magnetosphere. Journal of Geophysical Research: Space Physics, 2021, 126, .	0.8	14
7	Influence of the Solar Wind Dynamic Pressure on the Ion Precipitation: MAVEN Observations and Simulation Results. Journal of Geophysical Research: Space Physics, 2020, 125, e2020JA028183.	0.8	6
8	Influence of Extreme Ultraviolet Irradiance Variations on the Precipitating Ion Flux From MAVEN Observations. Geophysical Research Letters, 2019, 46, 7761-7768.	1.5	5
9	Recovery Timescales of the Dayside Martian Magnetosphere to IMF Variability. Geophysical Research Letters, 2019, 46, 10977-10986.	1.5	15
10	The Induced Magnetosphere of Mars: Asymmetrical Topology of the Magnetic Field Lines. Geophysical Research Letters, 2019, 46, 12722-12730.	1.5	25
11	MAVEN and MEX Multiâ€instrument Study of the Dayside of the Martian Induced Magnetospheric Structure Revealed by Pressure Analyses. Journal of Geophysical Research: Space Physics, 2019, 124, 8564-8589.	0.8	39
12	First In Situ Evidence of Mars Nonthermal Exosphere. Geophysical Research Letters, 2019, 46, 4144-4150.	1.5	7
13	Variability of Precipitating Ion Fluxes During the September 2017 Event at Mars. Journal of Geophysical Research: Space Physics, 2019, 124, 420-432.	0.8	6
14	Oxygen Ion Energization at Mars: Comparison of MAVEN and Mars Express Observations to Global Hybrid Simulation. Journal of Geophysical Research: Space Physics, 2018, 123, 1678-1689.	0.8	21
15	Effect of the Lateral Exospheric Transport on the Horizontal Hydrogen Distribution Near the Exobase of Mars. Journal of Geophysical Research: Space Physics, 2018, 123, 2441-2454.	0.8	6
16	On Mars's Atmospheric Sputtering After MAVEN's First Martian Year of Measurements. Geophysical Research Letters, 2018, 45, 4685-4691.	1.5	25
17	The LatHyS database for planetary plasma environment investigations: Overview and a case study of data/model comparisons. Planetary and Space Science, 2018, 150, 13-21.	0.9	10
18	Reply to comment â€œOn the hydrogen escape: Comment to variability of the hydrogen in the Martian upper atmosphere as simulated by a 3D atmosphere-exosphere coupling by J.-Y. Chaufray etÂal.â€•by V. Krasnopolsky, Icarus, 281, 262. Icarus, 2018, 301, 132-135.	1.1	2

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19	Effects of the Crustal Magnetic Fields and Changes in the IMF Orientation on the Magnetosphere of Mars: MAVEN Observations and LatHyS Results. Journal of Geophysical Research: Space Physics, 2018, 123, 5315-5333.	0.8	21
20	Comparison of Global Martian Plasma Models in the Context of MAVEN Observations. Journal of Geophysical Research: Space Physics, 2018, 123, 3714-3726.	0.8	15
21	Loss of the Martian atmosphere to space: Present-day loss rates determined from MAVEN observations and integrated loss through time. Icarus, 2018, 315, 146-157.	1.1	216
22	Responses of the Martian Magnetosphere to an Interplanetary Coronal Mass Ejection: MAVEN Observations and LatHyS Results. Geophysical Research Letters, 2018, 45, 7891-7900.	1.5	19
23	On the orbital variability of Ganymede's atmosphere. Icarus, 2017, 293, 185-198.	1.1	47
24	Solar Wind Interaction and Atmospheric Escape. , 2017, , 464-496.		18
25	On the Origins of Mars' Exospheric Nonthermal Oxygen Component as Observed by MAVEN and Modeled by HELIOSARES. Journal of Geophysical Research E: Planets, 2017, 122, 2401-2428.	1.5	27
26	Marsâ€solar wind interaction: LatHyS, an improved parallel 3â€Ð multispecies hybrid model. Journal of Geophysical Research: Space Physics, 2016, 121, 6378-6399.	0.8	54
27	3D magnetospheric parallel hybrid multi-grid method applied to planetâ€“plasma interactions. Journal of Computational Physics, 2016, 309, 295-313.	1.9	15
28	Characterizing Atmospheric Escape from Mars Today and Through Time, with MAVEN. Space Science Reviews, 2015, 195, 357-422.	3.7	99
29	Response of Mars O⁺ pickup ions to the 8 March 2015 ICME: Inferences from MAVEN dataâ€based models. Geophysical Research Letters, 2015, 42, 9095-9102.	1.5	47
30	NATURE OF THE MHD AND KINETIC SCALE TURBULENCE IN THE MAGNETOSHEATH OF SATURN: CASSINI OBSERVATIONS. Astrophysical Journal Letters, 2015, 813, L29.	3.0	57
31	3D hybrid simulations of the interaction of a magnetic cloud with a bow shock. Journal of Geophysical Research: Space Physics, 2015, 120, 6133-6151.	0.8	20
32	Mars heavy ion precipitating flux as measured by Mars Atmosphere and Volatile EvolutioN. Geophysical Research Letters, 2015, 42, 9135-9141.	1.5	39
33	The spatial distribution of planetary ion fluxes near Mars observed by MAVEN. Geophysical Research Letters, 2015, 42, 9142-9148.	1.5	115
34	MAVEN observations of the response of Mars to an interplanetary coronal mass ejection. Science, 2015, 350, aad0210.	6.0	166
35	Early MAVEN Deep Dip campaign reveals thermosphere and ionosphere variability. Science, 2015, 350, aad0459.	6.0	90
36	Variability of the hydrogen in the martian upper atmosphere as simulated by a 3D atmosphereâ€exosphere coupling. Icarus, 2015, 245, 282-294.	1.1	77

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37	Three-dimensional Martian ionosphere model: II. Effect of transport processes due to pressure gradients. Journal of Geophysical Research E: Planets, 2014, 119, 1614-1636.	1.5	51
38	Modelling Ganymedeâ€™s neutral environment: A 3D test-particle simulation. Icarus, 2014, 229, 157-169.	1.1	30
39	Outflow and plasma acceleration in Titan's induced magnetotail: Evidence of magnetic tension forces. Journal of Geophysical Research: Space Physics, 2014, 119, 9992.	0.8	4
40	A global hybrid model for Mercury's interaction with the solar wind: Case study of the dipole representation. Journal of Geophysical Research, 2012, 117, .	3.3	43
41	Dynamic Martian magnetosphere: Transient twist induced by a rotation of the IMF. Geophysical Research Letters, 2012, 39, .	1.5	31
42	Mars exospheric thermal and non-thermal components: Seasonal and local variations. Icarus, 2012, 221, 682-693.	1.1	51
43	Modeling of Venus, Mars, and Titan. Space Science Reviews, 2011, 162, 267-307.	3.7	26
44	A comparison of global models for the solar wind interaction with Mars. Icarus, 2010, 206, 139-151.	1.1	108
45	Capture of solar wind alphaâ€particles by the Martian atmosphere. Geophysical Research Letters, 2009, 36, .	1.5	25
46	Ionospheric storms on Mars: Impact of the corotating interaction region. Geophysical Research Letters, 2009, 36, .	1.5	61
47	Plasma boundary variability at Mars as observed by Mars Global Surveyor and Mars Express. Annales Geophysicae, 2009, 27, 3537-3550.	0.6	70
48	Asymmetry of plasma fluxes at Mars. ASPERA-3 observations and hybrid simulations. Planetary and Space Science, 2008, 56, 832-835.	0.9	20
49	Structure and dynamics of the solar wind/ionosphere interface on Mars: MEXâ€ASPERAâ€3 and MEXâ€MARSIS observations. Geophysical Research Letters, 2008, 35, .	1.5	74
50	Electron densities in the upper ionosphere of Mars from the excitation of electron plasma oscillations. Journal of Geophysical Research, 2008, 113, .	3.3	97
51	Plasma environment of Mars as observed by simultaneous MEXâ€ASPERAâ€3 and MEXâ€MARSIS observations. Journal of Geophysical Research, 2008, 113, .	3.3	54
52	Far plasma wake of Titan from the RPWS observations: A case study. Geophysical Research Letters, 2007, 34, .	1.5	22
53	Plasma environment in the wake of Titan from hybrid simulation: A case study. Geophysical Research Letters, 2007, 34, .	1.5	39
54	Cold ionospheric plasma in Titan's magnetotail. Geophysical Research Letters, 2007, 34, .	1.5	25

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55	Mars solar wind interaction: Formation of the Martian corona and atmospheric loss to space. Journal of Geophysical Research, 2007, 112, .	3.3	115
56	Simulated solar wind plasma interaction with the Martian exosphere: influence of the solar EUV flux on the bow shock and the magnetic pile-up boundary. Annales Geophysicae, 2006, 24, 3403-3410.	0.6	56
57	Influence of the solar EUV flux on the Martian plasma environment. Annales Geophysicae, 2005, 23, 433-444.	0.6	129