Luca Montabone

List of Publications by Year
in descending order

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45	1,656	304743 22	289244 40
papers	citations	h-index	g-index

50	50	50	1071
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Eight-year climatology of dust optical depth on Mars. Icarus, 2015, 251, 65-95.	2.5	316
2	Revisiting the radiative impact of dust on Mars using the LMD Global Climate Model. Journal of Geophysical Research, 2011, 116, .	3.3	145
3	Martian Year 34 Column Dust Climatology from Mars Climate Sounder Observations: Reconstructed Maps and Model Simulations. Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006111.	3.6	137
4	Influence of water ice clouds on Martian tropical atmospheric temperatures. Geophysical Research Letters, 2008, 35, .	4.0	84
5	The solsticial pause on Mars: 1. A planetary wave reanalysis. Icarus, 2016, 264, 456-464.	2.5	74
6	Variability of the Martian thermosphere during eight Martian years as simulated by a ground-to-exosphere global circulation model. Journal of Geophysical Research E: Planets, 2015, 120, 2020-2035.	3.6	67
7	Validation of martian meteorological data assimilation for MGS/TES using radio occultation measurements. Icarus, 2006, 185, 113-132.	2.5	64
8	The Mars Analysis Correction Data Assimilation (<scp>MACDA</scp>) Dataset V1.0. Geoscience Data Journal, 2014, 1, 129-139.	4.4	61
9	Investigation of air temperature on the nightside of Venus derived from VIRTIS-H on board Venus-Express. Icarus, 2012, 217, 640-647.	2.5	59
10	Diurnal Variations of Dust During the 2018 Global Dust Storm Observed by the Mars Climate Sounder. Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006115.	3.6	52
11	Interannual variability of Martian dust storms in assimilation of several years of Mars global surveyor observations. Advances in Space Research, 2005, 36, 2146-2155.	2.6	51
12	Polar vortices on Earth and Mars: A comparative study of the climatology and variability from reanalyses. Quarterly Journal of the Royal Meteorological Society, 2015, 141, 550-562.	2.7	45
13	The impact of martian mesoscale winds on surface temperature and on the determination of thermal inertia. Icarus, 2011, 212, 504-519.	2.5	44
14	Thermal structure of Venusian nighttime mesosphere as observed by VIRTISâ€Venus Express. Journal of Geophysical Research, 2010, 115, .	3.3	41
15	Climatology and first-order composition estimates of mesospheric clouds from Mars Climate Sounder limb spectra. Icarus, 2013, 222, 342-356.	2.5	39
16	Martian polar vortices: Comparison of reanalyses. Journal of Geophysical Research E: Planets, 2016, 121, 1770-1785.	3.6	35
17	The Venus nighttime atmosphere as observed by the VIRTISâ€M instrument. Average fields from the complete infrared data set. Journal of Geophysical Research E: Planets, 2014, 119, 837-849.	3.6	32
18	Global energy budgets and â€˜Trenberth diagramsâ€™ for the climates of terrestrial and gas giant planets. Quarterly Journal of the Royal Meteorological Society, 2016, 142, 703-720.	2.7	28

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19	Study of gravity waves distribution and propagation in the thermosphere of Mars based on MGS, ODY, MRO and MAVEN density measurements. Planetary and Space Science, 2019, 178, 104708.	1.7	25
20	Assessing atmospheric predictability on Mars using numerical weather prediction and data assimilation. Quarterly Journal of the Royal Meteorological Society, 2010, 136, 1614-1635.	2.7	24
21	Mars Dust Storm Effects in the Ionosphere and Magnetosphere and Implications for Atmospheric Carbon Loss. Journal of Geophysical Research: Space Physics, 2020, 125, no.	2.4	23
22	Impact of Gravity Waves on the Middle Atmosphere of Mars: A Nonâ€Orographic Gravity Wave Parameterization Based on Global Climate Modeling and MCS Observations. Journal of Geophysical Research E: Planets, 2020, 125, e2018JE005873.	3.6	23
23	PFS/MEX observations of the condensing CO2 south polar cap of Mars. Icarus, 2008, 197, 386-402.	2.5	20
24	Transient teleconnection event at the onset of a planet-encircling dust storm on Mars. Annales Geophysicae, 2009, 27, 3663-3676.	1.6	20
25	Variations in the Ionospheric Peak Altitude at Mars in Response to Dust Storms: 13 Years of Observations From the Mars Express Radar Sounder. Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006092.	3.6	19
26	Seasonal reappearance of HCl in the atmosphere of Mars during the Mars year 35 dusty season. Astronomy and Astrophysics, 2021, 647, A161.	5.1	17
27	On the role of spatially inhomogeneous diabatic effects upon the evolution of Marsâ€™ annular polar vortex. Icarus, 2018, 314, 376-388.	2.5	14
28	A Lorenz/Boer energy budget for the atmosphere of Mars from a â€œreanalysisâ€•of spacecraft observations. Geophysical Research Letters, 2015, 42, 8320-8327.	4.0	13
29	Reconstructing the weather on Mars at the time of the MERs and Beagle 2 landings. Geophysical Research Letters, 2006, 33, .	4.0	11
30	Retrieval of the water ice column and physical properties of water-ice clouds in the martian atmosphere using the OMEGA imaging spectrometer. Icarus, 2021, 353, 113229.	2.5	8
31	Linear stability analysis of a shear layer induced by differential coaxial rotation within a cylindrical enclosure. Journal of Fluid Mechanics, 2014, 738, 299-334.	3.4	7
32	Non-axisymmetric flows in a differential-disk rotating system. Journal of Fluid Mechanics, 2015, 775, 349-386.	3.4	7
33	Investigating the semiannual oscillation on Mars using data assimilation. Icarus, 2019, 333, 404-414.	2.5	7
34	Effect of enclosure height on the structure and stability of shear layers induced by differential rotation. Journal of Fluid Mechanics, 2015, 765, 45-81.	3.4	6
35	Martian Dust. , 2022, , 637-666.		6
36	MOSAIC: A Satellite Constellation to Enable Groundbreaking Mars Climate System Science and Prepare for Human Exploration. Planetary Science Journal, 2021, 2, 211.	3.6	6

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37	The Origins of Longâ€Term Variability in Martian Upper Atmospheric Densities. Journal of Geophysical Research: Space Physics, 2022, 127, .	2.4	6
38	Improved Modeling of Mars' HDO Cycle Using a Mars' Global Climate Model. Journal of Geophysical Research E: Planets, 2022, 127, .	3.6	5
39	ON THE RETRIEVAL OF MESOSPHERIC WINDS ON MARS AND VENUS FROM GROUND-BASED OBSERVATIONS AT 10 Î¼m. Astrophysical Journal, 2016, 816, 103.	4.5	4
40	Assimilation of Both Columnâ€•and Layerâ€Integrated Dust Opacity Observations in the Martian Atmosphere. Earth and Space Science, 2021, 8, .	2.6	4
41	Measuring Mars Atmospheric Winds from Orbit. , 2021, 53, .		3
42	Low-order dynamical behavior in the martian atmosphere: Diagnosis of general circulation model results. Icarus, 2009, 204, 48-62.	2.5	2
43	Solar-System-Wide Significance of Mars Polar Science. , 2021, 53, .		2
44	Assimilating and Modeling Dust Transport in the Martian Climate System. Proceedings of the International Astronomical Union, 2012, 8, 326-328.	0.0	0
45	High Science Value Return of Small Spacecraft at Mars. , 2021, 53, .		0