Marco Giuranna

List of Publications by Year
in descending order

57 papers	2,515 citations	218381 26 h-index	189595 50 g-index
62 all docs	62 docs citations	62 times ranked	1881 citing authors

#	Article	IF	Citations
1	Detection of Methane in the Atmosphere of Mars. Science, 2004, 306, 1758-1761.	6.0	683
2	The Planetary Fourier Spectrometer (PFS) onboard the European Mars Express mission. Planetary and Space Science, 2005, 53, 963-974.	0.9	151
3	No detection of methane on Mars from early ExoMars Trace Gas Orbiter observations. Nature, 2019, 568, 517-520.	13.7	111
4	Martian dust storm impact on atmospheric H2O and D/H observed by ExoMars Trace Gas Orbiter. Nature, 2019, 568, 521-525.	13.7	107
5	Martian water vapor: Mars Express PFS/LW observations. Icarus, 2007, 190, 32-49.	1.1	101
6	Methane in Martian atmosphere: Average spatial, diurnal, and seasonal behaviour. Planetary and Space Science, 2008, 56, 1194-1203.	0.9	99
7	NOMAD, an Integrated Suite of Three Spectrometers for the ExoMars Trace Gas Mission: Technical Description, Science Objectives and Expected Performance. Space Science Reviews, 2018, 214, 1.	3.7	95
8	Science objectives and performances of NOMAD, a spectrometer suite for the ExoMars TGO mission. Planetary and Space Science, 2015, 119, 233-249.	0.9	77
9	Independent confirmation of a methane spike on Mars and a source region east of Gale Crater. Nature Geoscience, 2019, 12, 326-332.	5.4	63
10	Explanation for the Increase in Highâ€Altitude Water on Mars Observed by NOMAD During the 2018 Global Dust Storm. Geophysical Research Letters, 2020, 47, e2019GL084354.	1.5	62
11	Mars Express investigations of Phobos and Deimos. Planetary and Space Science, 2014, 102, 18-34.	0.9	54
12	Methods for the analysis of data from the Planetary Fourier Spectrometer on the Mars Express Mission. Planetary and Space Science, 2005, 53, 1017-1034.	0.9	51
13	Investigation of water vapor on Mars with PFS/SW of Mars Express. Icarus, 2008, 195, 557-575.	1.1	48
14	Seasonal variation of the HDO/H2O ratio in the atmosphere of Mars at the middle of northern spring and beginning of northern summer. Icarus, 2015, 260, 7-22.	1.1	47
15	Observations of CO in the atmosphere of Mars with PFS onboard Mars Express. Planetary and Space Science, 2009, 57, 1446-1457.	0.9	45
16	Calibration of the Planetary Fourier Spectrometer short wavelength channel. Planetary and Space Science, 2005, 53, 975-991.	0.9	43
17	Calibration of the Planetary Fourier Spectrometer long wavelength channel. Planetary and Space Science, 2005, 53, 993-1007.	0.9	43
18	Compositional interpretation of PFS/MEx and TES/MGS thermal infrared spectra of Phobos. Planetary and Space Science, 2011, 59, 1308-1325.	0.9	43

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19	A study of the properties of a local dust storm with Mars Express OMEGA and PFS data. Icarus, 2009, 201, 504-516.	1.1	42
20	The planetary fourier spectrometer (PFS) onboard the European Venus Express mission. Planetary and Space Science, 2006, 54, 1298-1314.	0.9	39
21	Mesospheric CO2 ice clouds on Mars observed by Planetary Fourier Spectrometer onboard Mars Express. Icarus, 2018, 302, 175-190.	1.1	34
22	The current weather and climate of Mars: 12â€¯years of atmospheric monitoring by the Planetary Fourier Spectrometer on Mars Express. Icarus, 2021, 353, 113406.	1.1	34
23	Observations of non-LTE emission at 4â€“5 microns with the planetary Fourier spectrometer abord the Mars Express mission. Icarus, 2006, 182, 51-67.	1.1	33
24	Water clouds and dust aerosols observations with PFS MEX at Mars. Planetary and Space Science, 2005, 53, 1065-1077.	0.9	32
25	The EChO science case. Experimental Astronomy, 2015, 40, 329-391.	1.6	31
26	Expected performances of the NOMAD/ExoMars instrument. Planetary and Space Science, 2016, 124, 94-104.	0.9	31
27	Characterization of dust activity on Mars from MY27 to MY32 by PFS-MEX observations. Icarus, 2018, 310, 32-47.	1.1	28
28	Optical and radiometric models of the NOMAD instrument part I: the UVIS channel. Optics Express, 2015, 23, 30028.	1.7	26
29	Optical and radiometric models of the NOMAD instrument part II: the infrared channels - SO and LNO. Optics Express, 2016, 24, 3790.	1.7	25
30	PFS-MEX observation of ices in the residual south polar cap of Mars. Planetary and Space Science, 2005, 53, 1089-1095.	0.9	22
31	The Martian atmosphere above great volcanoes: Early planetary Fourier spectrometer observations. Planetary and Space Science, 2005, 53, 1053-1064.	0.9	22
32	Albedo and photometric study of Mars with the Planetary Fourier Spectrometer on-board the Mars Express mission. Icarus, 2007, 186, 527-546.	1.1	22
33	PFS/MEX observations of the condensing CO2 south polar cap of Mars. Icarus, 2008, 197, 386-402.	1.1	20
34	Similarities and Differences of Global Dust Storms in MY 25, 28, and 34. Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006104.	1.5	20
35	Spatial variability, composition and thickness of the seasonal north polar cap of Mars in mid-spring. Planetary and Space Science, 2007, 55, 1328-1345.	0.9	13
36	AOST: Fourier spectrometer for studying mars and phobos. Solar System Research, 2012, 46, 31-40.	0.3	11

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37	Results of measurements with the Planetary Fourier Spectrometer onboard Mars Express: Clouds and dust at the end of southern summer. A comparison with OMEGA images. Cosmic Research, 2006, 44, 305-316.	0.2	10
38	Tracking the edge of the south seasonal polar cap of Mars. Planetary and Space Science, 2007, 55, 1319-1327.	0.9	10
39	Stringent upper limit of CH₄ on Mars based on SOFIA/EXES observations. Astronomy and Astrophysics, 2018, 610, A78.	2.1	10
40	A Martian PFS average spectrum: Comparison with ISO SWS. Planetary and Space Science, 2005, 53, 1043-1052.	0.9	9
41	Ground-based infrared mapping of H₂O₂ on Mars near opposition. Astronomy and Astrophysics, 2019, 627, A60.	2.1	8
42	Daily dust variation from the PFS MEx observations. Icarus, 2021, 353, 113823.	1.1	8
43	A Global and Seasonal Perspective of Martian Water Vapor From ExoMars/NOMAD. Journal of Geophysical Research E: Planets, 2021, 126, .	1.5	8
44	Interferometric millimeter observations of water vapor on Mars and comparison with Mars Express measurements. Planetary and Space Science, 2011, 59, 683-690.	0.9	7
45	Search for hydrogen peroxide in the Martian atmosphere by the Planetary Fourier Spectrometer onboard Mars Express. Icarus, 2015, 245, 177-183.	1.1	7
46	Retrieval and characterization of carbon monoxide (CO) vertical profiles in the Martian atmosphere from observations of PFS/MEX. Journal of Quantitative Spectroscopy and Radiative Transfer, 2019, 238, 106498.	1.1	6
47	Seasonal and Spatial Variability of Carbon Monoxide (CO) in the Martian Atmosphere From PFS/MEX Observations. Journal of Geophysical Research E: Planets, 2021, 126, e2020JE006480.	1.5	6
48	Water Vapor on Mars: A Refined Climatology and Constraints on the Nearâ€Surface Concentration Enabled by Synergistic Retrievals. Journal of Geophysical Research E: Planets, 2022, 127, .	1.5	5
49	Comparison of surface temperatures measured by the Planetary Fourier Spectrometer (PFS) on Mars Express with predictions from the Berlin Mars near Surface Thermal model (BMST) for the BEAGLE 2 landing site in Isidis Planitia. Advances in Space Research, 2006, 38, 709-712.	1.2	4
50	First observations of the planetary Fourier spectrometer at Mars. Advances in Space Research, 2005, 36, 1074-1083.	1.2	3
51	Tidal variations in the Martian lower atmosphere inferred from Mars Express Planetary Fourier Spectrometer temperature data. Geophysical Research Letters, 2011, 38, n/a-n/a.	1.5	3
52	PFS/MEX limb observations of 4.3-Âµm CO2 non-LTE emission in the atmosphere of Mars. Icarus, 2018, 315, 46-60.	1.1	2
53	Toward a numerical deshaker for PFS. Planetary and Space Science, 2014, 91, 45-51.	0.9	1
54	Analytical model and spectral correction of vibration effects on Fourier transform spectrometer. Proceedings of SPIE, 2013, , .	0.8	0

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55	Preparing EChO space mission: laboratory simulation of planetary atmospheres. , 2014, , .		0
56	Exploiting night-time averaged spectra from PFS/MEX shortwave channel. Part 1: Temperature retrieval from the CO2 Î½3 band. Planetary and Space Science, 2021, 198, 105186.	0.9	0
57	Exploiting night-time averaged spectra from PFS/MEX shortwave channel. Part 2: Near-surface CO retrievals. Planetary and Space Science, 2021, 199, 105188.	0.9	0