Manuel de la Torre Juarez

List of Publications by Year
in descending order

73 papers	4,236 citations	136950 32 h-index	110387 64 g-index
82 all docs	82 docs citations	82 times ranked	3864 citing authors

#	Article	IF	Citations
1	Marsâ€™ Surface Radiation Environment Measured with the Mars Science Laboratoryâ€™s Curiosity Rover. Science, 2014, 343, 1244797.	12.6	475
2	Volatile, Isotope, and Organic Analysis of Martian Fines with the Mars Curiosity Rover. Science, 2013, 341, 1238937.	12.6	367
3	X-ray Diffraction Results from Mars Science Laboratory: Mineralogy of Rocknest at Gale Crater. Science, 2013, 341, 1238932.	12.6	327
4	CHAMP and SAC-C atmospheric occultation results and intercomparisons. Journal of Geophysical Research, 2004, 109, n/a-n/a.	3.3	291
5	REMS: The Environmental Sensor Suite for the Mars Science Laboratory Rover. Space Science Reviews, 2012, 170, 583-640.	8.1	247
6	Soil Diversity and Hydration as Observed by ChemCam at Gale Crater, Mars. Science, 2013, 341, 1238670.	12.6	215
7	SporadicEmorphology from GPS-CHAMP radio occultation. Journal of Geophysical Research, 2005, 110, .	3.3	155
8	Mars Science Laboratory Observations of the 2018/Mars Year 34 Global Dust Storm. Geophysical Research Letters, 2019, 46, 71-79.	4.0	138
9	Remote sounding of atmospheric gravity waves with satellite limb and nadir techniques. Advances in Space Research, 2006, 37, 2269-2277.	2.6	118
10	Thermally induced hydrodynamic fluctuations below the onset of electroconvection. Physical Review Letters, 1991, 67, 596-599.	7.8	116
11	Curiosity's rover environmental monitoring station: Overview of the first 100 sols. Journal of Geophysical Research E: Planets, 2014, 119, 1680-1688.	3.6	112
12	Pressure observations by the Curiosity rover: Initial results. Journal of Geophysical Research E: Planets, 2014, 119, 82-92.	3.6	84
13	Temporal Modulation of Traveling Waves. Physical Review Letters, 1988, 61, 2449-2452.	7.8	81
14	Preliminary interpretation of the REMS pressure data from the first 100 sols of the MSL mission. Journal of Geophysical Research E: Planets, 2014, 119, 440-453.	3.6	80
15	The instability and breakdown of tall columnar vortices in a quasi-geostrophic fluid. Journal of Fluid Mechanics, 1996, 328, 129-160.	3.4	79
16	Carrier phase delay altimetry with GPS-reflection/occultation interferometry from low Earth orbiters. Geophysical Research Letters, 2004, 31, n/a-n/a.	4.0	69
17	Observations and preliminary science results from the first 100 sols of MSL Rover Environmental Monitoring Station ground temperature sensor measurements at Gale Crater. Journal of Geophysical Research E: Planets, 2014, 119, 745-770.	3.6	67
18	Observational evidence of a suppressed planetary boundary layer in northern Gale Crater, Mars as seen by the Navcam instrument onboard the Mars Science Laboratory rover. Icarus, 2015, 249, 129-142.	2.5	66

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19	Evaluation of ACCMIP outgoing longwave radiation from tropospheric ozone using TES satellite observations. Atmospheric Chemistry and Physics, 2013, 13, 4057-4072.	4.9	61
20	Comparison of upper tropospheric water vapor observations from the Microwave Limb Sounder and Atmospheric Infrared Sounder. Journal of Geophysical Research, 2008, 113, .	3.3	60
21	The Mars Environmental Dynamics Analyzer, MEDA. A Suite of Environmental Sensors for the Mars 2020 Mission. Space Science Reviews, 2021, 217, 48.	8.1	57
22	Mars Oxygen ISRU Experiment (MOXIE). Space Science Reviews, 2021, 217, 1.	8.1	56
23	The three-dimensional vortical nature of atmospheric and oceanic turbulent flows. Physics of Fluids, 1999, 11, 1512-1520.	4.0	48
24	Intercomparison of general circulation models for hot extrasolar planets. Icarus, 2014, 229, 355-377.	2.5	48
25	The dynamic atmospheric and aeolian environment of Jezero crater, Mars. Science Advances, 2022, 8, .	10.3	47
26	Surface energy budget and thermal inertia at Gale Crater: Calculations from groundâ€based measurements. Journal of Geophysical Research E: Planets, 2014, 119, 1822-1838.	3.6	46
27	Atmospheric tides in Gale Crater, Mars. Icarus, 2016, 268, 37-49.	2.5	45
28	Likely frost events at Gale crater: Analysis from MSL/REMS measurements. Icarus, 2016, 280, 93-102.	2.5	44
29	Pattern formation in a liquid crystal. , 1989, , 35-52.		40
30	Effects of the MY34/2018 Global Dust Storm as Measured by MSL REMS in Gale Crater. Journal of Geophysical Research E: Planets, 2019, 124, 1899-1912.	3.6	40
31	Four-wave resonance in electrohydrodynamic convection. Physical Review A, 1990, 42, 2096-2100.	2.5	37
32	Multi-model Meteorological and Aeolian Predictions for Mars 2020 and the Jezero Crater Region. Space Science Reviews, 2021, 217, 20.	8.1	35
33	Determination of dust aerosol particle size at Gale Crater using REMS UVS and Mastcam measurements. Geophysical Research Letters, 2017, 44, 3502-3508.	4.0	34
34	A high-resolution, three-dimensional model of Jupiter's Great Red Spot. Journal of Geophysical Research, 2001, 106, 5099-5105.	3.3	32
35	Atmospheric polarimetric effects on GNSS radio occultations: the ROHP-PAZ field campaign. Atmospheric Chemistry and Physics, 2016, 16, 635-649.	4.9	30
36	In situ recording of Mars soundscape. Nature, 2022, 605, 653-658.	27.8	30

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37	Atmospheric movies acquired at the Mars Science Laboratory landing site: Cloud morphology, frequency and significance to the Gale Crater water cycle and Phoenix mission results. Advances in Space Research, 2015, 55, 2217-2238.	2.6	28
38	Detection of Northern Hemisphere transient eddies at Gale Crater Mars. Icarus, 2018, 307, 150-160.	2.5	27
39	Sensing Heavy Precipitation With GNSS Polarimetric Radio Occultations. Geophysical Research Letters, 2019, 46, 1024-1031.	4.0	26
40	Stability of two-dimensional convection in a fluid-saturated porous medium. Journal of Fluid Mechanics, 1995, 292, 305-323.	3.4	24
41	Transient structures in the FrÃ©edericksz transition. Physical Review A, 1989, 40, 7427-7430.	2.5	22
42	The first Martian year of cloud activity from Mars Science Laboratory (sol 0â€“800). Advances in Space Research, 2016, 57, 1223-1240.	2.6	20
43	The Surface Energy Budget at Gale Crater During the First 2500 Sols of the Mars Science Laboratory Mission. Journal of Geophysical Research E: Planets, 2021, 126, e2020JE006804.	3.6	16
44	Phase shift of dielectric rolls in electroconvection. Physical Review A, 1992, 46, 1009-1013.	2.5	15
45	Intermittencies and power-law low-frequency divergencies in a nonlineat oscillator. Physica D: Nonlinear Phenomena, 1989, 36, 92-108.	2.8	14
46	Correcting negatively biased refractivity below ducts in GNSS radio occultation: an optimal estimation approach towards improving planetary boundary layer (PBL) characterization. Atmospheric Measurement Techniques, 2017, 10, 4761-4776.	3.1	11
47	Gravity Wave Observations by the Mars Science Laboratory REMS Pressure Sensor and Comparison With Mesoscale Atmospheric Modeling With MarsWRF. Journal of Geophysical Research E: Planets, 2021, 126, e2021JE006907.	3.6	11
48	Airborne imaging spectroscopy to monitor urban mosquito microhabitats. Remote Sensing of Environment, 2013, 137, 226-233.	11.0	10
49	The Effect of Bagnold Dunes Slopes on the Short Timescale Air Temperature Fluctuations at Gale Crater on Mars. Geophysical Research Letters, 2018, 45, 11,588.	4.0	10
50	Evaluation of CHAMP radio occultation refractivity using data assimilation office analyses and radiosondes. Geophysical Research Letters, 2003, 30, .	4.0	9
51	Assessment of global navigation satellite system (GNSS) radio occultation refractivity under heavy precipitation. Atmospheric Chemistry and Physics, 2018, 18, 11697-11708.	4.9	9
52	Benefits of a Closely-Spaced Satellite Constellation of Atmospheric Polarimetric Radio Occultation Measurements. Remote Sensing, 2019, 11, 2399.	4.0	9
53	Calibration and validation of the Polarimetric Radio Occultation and Heavy Precipitation experiment aboard the PAZ satellite. Atmospheric Measurement Techniques, 2020, 13, 1299-1313.	3.1	8
54	The effect of impulsive forces on a system with friction: the example of the billiard game. European Journal of Physics, 1994, 15, 184-190.	0.6	7

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55	Single frequency processing of atmospheric radio occultations. International Journal of Remote Sensing, 2004, 25, 3731-3744.	2.9	7
56	Sensitivity of GPS occultation to the stratopause height. Journal of Geophysical Research, 2007, 112, .	3.3	7
57	Detection of temperatures conducive to Arctic polar stratospheric clouds using CHAMP and SACâ€€ radio occultation data. Journal of Geophysical Research, 2009, 114, .	3.3	7
58	GNSS-RO Refractivity Bias Correction Under Ducting Layer Using Surface-Reflection Signal. Remote Sensing, 2020, 12, 359.	4.0	7
59	Sensitivity of Stratospheric Retrievals from Radio Occultations on Upper Boundary Conditions. , 2006, , 17-26.		7
60	On the detection of water vapor profiles and thin moisture layers from atmospheric radio occultations. Journal of Geophysical Research, 2003, 108, n/a-n/a.	3.3	6
61	Scale-by-scale analysis of probability distributions for global MODIS-AQUA cloud properties: how the large scale signature of turbulence may impact statistical analyses of clouds. Atmospheric Chemistry and Physics, 2011, 11, 2893-2901.	4.9	6
62	Sensing Horizontally Oriented Frozen Particles With Polarimetric Radio Occultations Aboard PAZ: Validation Using GMI Coincident Observations and Cloudsat a Priori Information. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-13.	6.3	5
63	Remote Sensing of Fine-Scale Vertical Structures in the Atmosphere with GPS Occultations. , 2004, , .		3
64	Signatures of Heavy Precipitation on the Thermodynamics of Clouds Seen From Satellite: Changes Observed in Temperature Lapse Rates and Missed by Weather Analyses. Journal of Geophysical Research D: Atmospheres, 2018, 123, 13,033.	3.3	3
65	Interpretation of the Precipitation Structure Contained in Polarimetric Radio Occultation Profiles Using Passive Microwave Satellite Observations. Journal of Atmospheric and Oceanic Technology, 2021, , .	1.3	3
66	Thermal Forcing of the Nocturnal Near Surface Environment by Martian Water Ice Clouds. Journal of Geophysical Research E: Planets, 2021, 126, .	3.6	3
67	Taylorâ€“Proudman columns in nonâ€hydrostatic divergent baroclinic and barotropic flows. Quarterly Journal of the Royal Meteorological Society, 2009, 135, 2179-2184.	2.7	2
68	AnÃ¡lisis de las condiciones ambientales en el crÃ¡ter Gale a partir de mediciones REMS/MSL. FÃsica De La Tierra, 2016, 28, .	0.1	2
69	Soft Transition between Type-I and -III Intermittencies in a Nonlinear Map. Progress of Theoretical Physics, 1989, 81, 544-548.	2.0	1
70	Geostrophic Thermal Winds with a Full Coriolis Force: Response to "Thermal Wind Balance with Full Geostrophy" By J.-I. Yano. Geophysical and Astrophysical Fluid Dynamics, 2002, 96, 431-434.	1.2	1
71	The Effects of Heavy Precipitation on Polarimetric Radio Occultation (PRO) Bending Angle Observations. Journal of Atmospheric and Oceanic Technology, 2022, 39, 149-161.	1.3	1
72	Tropical Tropopause Structure and Processes as Observed with GPS Radio Occultation. , 2004, , .		0

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73	Experiments with Travelling Waves in Electrohydrodynamic Convection. NATO ASI Series Series B: Physics, 1990, , 65-67.	0.2	0