Scott D Guzewich

List of Publications by Year
in descending order

55 papers	3,088 citations	218677 26 h-index	155660 55 g-index
71 all docs	71 docs citations	71 times ranked	2587 citing authors

#	Article	IF	Citations
1	Mineralogy of a Mudstone at Yellowknife Bay, Gale Crater, Mars. Science, 2014, 343, 1243480.	12.6	508
2	X-ray Diffraction Results from Mars Science Laboratory: Mineralogy of Rocknest at Gale Crater. Science, 2013, 341, 1238932.	12.6	327
3	Curiosity at Gale Crater, Mars: Characterization and Analysis of the Rocknest Sand Shadow. Science, 2013, 341, 1239505.	12.6	280
4	Isotope Ratios of H, C, and O in CO ₂ and H ₂ O of the Martian Atmosphere. Science, 2013, 341, 260-263.	12.6	241
5	MAVEN observations of the response of Mars to an interplanetary coronal mass ejection. Science, 2015, 350, aad0210.	12.6	166
6	The Modern Near-Surface Martian Climate: A Review of In-situ Meteorological Data from Viking to Curiosity. Space Science Reviews, 2017, 212, 295-338.	8.1	153
7	Mars Science Laboratory Observations of the 2018/Mars Year 34 Global Dust Storm. Geophysical Research Letters, 2019, 46, 71-79.	4.0	138
8	Winds measured by the Rover Environmental Monitoring Station (REMS) during the Mars Science Laboratory (MSL) rover's Bagnold Dunes Campaign and comparison with numerical modeling using MarsWRF. Icarus, 2017, 291, 203-231.	2.5	119
9	Early MAVEN Deep Dip campaign reveals thermosphere and ionosphere variability. Science, 2015, 350, aad0459.	12.6	90
10	Highâ€altitude dust layers on Mars: Observations with the Thermal Emission Spectrometer. Journal of Geophysical Research E: Planets, 2013, 118, 1177-1194.	3.6	60
11	Large Dust Aerosol Sizes Seen During the 2018 Martian Global Dust Event by the Curiosity Rover. Geophysical Research Letters, 2019, 46, 9448-9456.	4.0	58
12	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
13	Mars Orbiter Camera climatology of textured dust storms. Icarus, 2015, 258, 1-13.	2.5	54
14	Influence of water ice clouds on nighttime tropical temperature structure as seen by the Mars Climate Sounder. Geophysical Research Letters, 2014, 41, 3375-3381.	4.0	47
15	The dynamic atmospheric and aeolian environment of Jezero crater, Mars. Science Advances, 2022, 8, .	10.3	47
16	Observations of planetary waves and nonmigrating tides by the Mars Climate Sounder. Journal of Geophysical Research, 2012, 117, .	3.3	45
17	Atmospheric tides in Gale Crater, Mars. Icarus, 2016, 268, 37-49.	2.5	45
18	Penitentes as the origin of the bladed terrain of Tartarus Dorsa on Pluto. Nature, 2017, 541, 188-190.	27.8	43

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19	The vertical distribution of Martian aerosol particle size. Journal of Geophysical Research E: Planets, 2014, 119, 2694-2708.	3.6	42
20	Thermal tides during the 2001 Martian globalâ€scale dust storm. Journal of Geophysical Research E: Planets, 2014, 119, 506-519.	3.6	42
21	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
22	The impact of a realistic vertical dust distribution on the simulation of the Martian General Circulation. Journal of Geophysical Research E: Planets, 2013, 118, 980-993.	3.6	37
23	Martian polar vortices: Comparison of reanalyses. Journal of Geophysical Research E: Planets, 2016, 121, 1770-1785.	3.6	35
24	The Methane Diurnal Variation and Microseepage Flux at Gale Crater, Mars as Constrained by the ExoMars Trace Gas Orbiter and Curiosity Observations. Geophysical Research Letters, 2019, 46, 9430-9438.	4.0	31
25	An investigation of dust storms observed with the Mars Color Imager. Icarus, 2017, 289, 199-213.	2.5	28
26	What causes Mars' annular polar vortices?. Geophysical Research Letters, 2017, 44, 71-78.	4.0	28
27	The effect of dust on the martian polar vortices. Icarus, 2016, 278, 100-118.	2.5	26
28	The Vertical Dust Profile Over Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2017, 122, 2779-2792.	3.6	22
29	Changes in Soil Cohesion Due to Water Vapor Exchange: A Proposed Dryâ€Flow Trigger Mechanism for Recurring Slope Lineae on Mars. Geophysical Research Letters, 2020, 47, e2020GL087618.	4.0	22
30	The cascade from local to global dust storms on Mars: Temporal and spatial thresholds on thermal and dynamical feedback. Icarus, 2018, 302, 514-536.	2.5	21
31	Seasonal Variation in Martian Water Ice Cloud Particle Size. Journal of Geophysical Research E: Planets, 2019, 124, 636-643.	3.6	21
32	Albedos, Equilibrium Temperatures, and Surface Temperatures of Habitable Planets. Astrophysical Journal, 2019, 884, 75.	4.5	18
33	General circulation models of the dynamics of Plutoâ€™s volatile transport on the eve of the New Horizons encounter. Icarus, 2015, 254, 306-323.	2.5	17
34	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
35	Visibility and Lineâ€ofâ€Sight Extinction Estimates in Gale Crater During the 2018/MY34 Global Dust Storm. Geophysical Research Letters, 2019, 46, 9414-9421.	4.0	13
36	Understanding the water cycle above the north polar cap on Mars using MRO CRISM retrievals of water vapor. Icarus, 2019, 321, 722-735.	2.5	13

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37	Design of a direct-detection wind and aerosol lidar for mars orbit. CEAS Space Journal, 2020, 12, 149-162.	2.3	12
38	3D Simulations of the Early Martian Hydrological Cycle Mediated by a H₂â€CO₂Greenhouse. Journal of Geophysical Research E: Planets, 2021, 126, e2021JE006825.	3.6	12
39	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
40	Seasonal variations in Plutoâ€™s atmospheric tides. Icarus, 2015, 246, 247-267.	2.5	10
41	Estimating the altitudes of Martian water-ice clouds above the Mars Science Laboratory rover landing site. Planetary and Space Science, 2020, 182, 104785.	1.7	9
42	Studies of the 2018/Mars Year 34 Planetâ€Encircling Dust Storm. Journal of Geophysical Research E: Planets, 2020, 125, e2020JE006700.	3.6	9
43	IRTF/CSHELL mapping of atmospheric HDO, H2O and D/H on Mars during northern summer. Icarus, 2019, 330, 204-216.	2.5	8
44	Constraints on Mars Aphelion Cloud Belt phase function and ice crystal geometries. Planetary and Space Science, 2019, 168, 62-72.	1.7	8
45	Atmospheric transport into polar regions on Mars in different orbital epochs. Icarus, 2020, 347, 113816.	2.5	8
46	Vertical and horizontal heterogeneity of atmospheric dust loading in northern Gale Crater, Mars. Icarus, 2019, 329, 197-206.	2.5	6
47	Aphelion Cloud Belt phase function investigations with Mars Color Imager (MARCI). Planetary and Space Science, 2020, 184, 104840.	1.7	6
48	Martian Dust. , 2022, , 637-666.		6
49	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
50	The Impact of Planetary Rotation Rate on the Reflectance and Thermal Emission Spectrum of Terrestrial Exoplanets around Sunlike Stars. Astrophysical Journal, 2020, 893, 140.	4.5	5
51	Limits on Runoff Episode Duration for Early Mars: Integrating Lake Hydrology and Climate Models. Geophysical Research Letters, 2021, 48, e2021GL093523.	4.0	5
52	Volcanic Climate Warming Through Radiative and Dynamical Feedbacks of SO₂ Emissions. Geophysical Research Letters, 2022, 49, .	4.0	5
53	The Lineâ€ofâ€Sight Extinction Record at Gale Crater as Observed by MSL's Mastcam and Navcam through â^¼2,500â€‰Sols. Journal of Geophysical Research E: Planets, 2020, 125, e2020JE006465.	3.6	3
54	Detections of Water Vapor Increase Over the North Polar Troughs on Mars as Observed by CRISM. Geophysical Research Letters, 2020, 47, e2019GL086195.	4.0	3

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55	Mission to the Trojan asteroids: Lessons learned during a JPL Planetary Science Summer School mission design exercise. Planetary and Space Science, 2013, 76, 68-82.	1.7	1