Claire E Newman

List of Publications by Year
in descending order

86 papers	5,652 citations	81900 39 h-index	76900 74 g-index
108 all docs	108 docs citations	108 times ranked	3554 citing authors

#	Article	IF	Citations
1	Martian Dust. , 2022, , 637-666.		6
2	Diurnal Variability in Aeolian Sediment Transport at Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2022, 127, .	3.6	9
3	Characteristics of convective vortices and dust devils at gale crater on Mars during MY33. Planetary and Space Science, 2022, 213, 105430.	1.7	2
4	Winter Weakening of Titan's Stratospheric Polar Vortices. Planetary Science Journal, 2022, 3, 73.	3.6	4
5	In situ recording of Mars soundscape. Nature, 2022, 605, 653-658.	27.8	30
6	Multi-year measurements of ripple and dune migration on Mars: Implications for the wind regime and sand transport. Icarus, 2022, 380, 114966.	2.5	5
7	Earth-like thermal and dynamical coupling processes in the Martian climate system. Earth-Science Reviews, 2022, 229, 104023.	9.1	18
8	Orbital and Inâ€Situ Investigation of Periodic Bedrock Ridges in Glen Torridon, Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2022, 127, .	3.6	18
9	InSight Pressure Data Recalibration, and Its Application to the Study of Longâ€Term Pressure Changes on Mars. Journal of Geophysical Research E: Planets, 2022, 127, .	3.6	12
10	The dynamic atmospheric and aeolian environment of Jezero crater, Mars. Science Advances, 2022, 8, .	10.3	47
11	Variability in Titanâ€™s Mesospheric HCN and Temperature Structure as Observed by ALMA. Planetary Science Journal, 2022, 3, 146.	3.6	2
12	The Aeolian Environment in Glen Torridon, Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2022, 127, .	3.6	14
13	The whirlwinds of Elysium: A catalog and meteorological characteristics of â€œdust devilâ€•vortices observed by InSight on Mars. Icarus, 2021, 355, 114119.	2.5	20
14	Vortexâ€Dominated Aeolian Activity at InSight's Landing Site, Part 2: Local Meteorology, Transport Dynamics, and Model Analysis. Journal of Geophysical Research E: Planets, 2021, 126, e2020JE006514.	3.6	19
15	Multi-model Meteorological and Aeolian Predictions for Mars 2020 and the Jezero Crater Region. Space Science Reviews, 2021, 217, 20.	8.1	35
16	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
17	Vortexâ€Dominated Aeolian Activity at InSight's Landing Site, Part 1: Multiâ€Instrument Observations, Analysis, and Implications. Journal of Geophysical Research E: Planets, 2021, 126, e2020JE006757.	3.6	23
18	Titan: Earth-like on the Outside, Ocean World on the Inside. Planetary Science Journal, 2021, 2, 112.	3.6	21

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19	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
20	Science Goals and Objectives for the Dragonfly Titan Rotorcraft Relocatable Lander. Planetary Science Journal, 2021, 2, 130.	3.6	80
21	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
22	Large Eddy Simulations of the Dusty Martian Convective Boundary Layer With MarsWRF. Journal of Geophysical Research E: Planets, 2021, 126, e2020JE006752.	3.6	17
23	Interâ€annual, seasonal and regional variations in the Martian convective boundary layer derived from GCM simulations with a semiâ€interactive dust transport model. Journal of Geophysical Research E: Planets, 2021, 126, e2021JE006965.	3.6	3
24	Lander and rover histories of dust accumulation on and removal from solar arrays on Mars. Planetary and Space Science, 2021, 207, 105337.	1.7	23
25	A Study of Daytime Convective Vortices and Turbulence in the Martian Planetary Boundary Layer Based on Halfâ€aâ€Year of InSight Atmospheric Measurements and Largeâ€Eddy Simulations. Journal of Geophysical Research E: Planets, 2021, 126, .	3.6	45
26	Dust and water ice variability and their interaction pattern during Martian low-dust and high-dust periods. Planetary and Space Science, 2021, 209, 105357.	1.7	1
27	Constraints on Emission Source Locations of Methane Detected by Mars Science Laboratory. Journal of Geophysical Research E: Planets, 2021, 126, .	3.6	5
28	Mars 2020 Mission Overview. Space Science Reviews, 2020, 216, 1.	8.1	239
29	The Lineâ€ofâ€Sight Extinction Record at Gale Crater as Observed by MSL's Mastcam and Navcam through â¼42,500â€‰Sols. Journal of Geophysical Research E: Planets, 2020, 125, e2020JE006465.	3.6	3
30	Effects of a Large Dust Storm in the Nearâ€Surface Atmosphere as Measured by InSight in Elysium Planitia, Mars. Comparison With Contemporaneous Measurements by Mars Science Laboratory. Journal of Geophysical Research E: Planets, 2020, 125, e2020JE006493.	3.6	30
31	Geology of the InSight landing site on Mars. Nature Communications, 2020, 11, 1014.	12.8	107
32	The atmosphere of Mars as observed by InSight. Nature Geoscience, 2020, 13, 190-198.	12.9	161
33	Advective Fluxes in the Martian Regolith as a Mechanism Driving Methane and Other Trace Gas Emissions to the Atmosphere. Geophysical Research Letters, 2020, 47, e2019GL085694.	4.0	9
34	Monitoring of Dust Devil Tracks Around the InSight Landing Site, Mars, and Comparison With In Situ Atmospheric Data. Geophysical Research Letters, 2020, 47, e2020GL087234.	4.0	30
35	Meteorological Predictions for Mars 2020 Perseverance Rover Landing Site at Jezero Crater. Space Science Reviews, 2020, 216, 1.	8.1	62
36	Initial results from the InSight mission on Mars. Nature Geoscience, 2020, 13, 183-189.	12.9	274

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37	Replication of the historic record of martian global dust storm occurrence in an atmospheric general circulation model. Icarus, 2019, 317, 197-208.	2.5	12
38	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
39	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
40	MarsWRF Convective Vortex and Dust Devil Predictions for Gale Crater Over 3 Mars Years and Comparison With MSLâ€REMS Observations. Journal of Geophysical Research E: Planets, 2019, 124, 3442-3468.	3.6	41
41	An initial assessment of the impact of postulated orbit-spin coupling on Mars dust storm variability in fully interactive dust simulations. Icarus, 2019, 317, 649-668.	2.5	20
42	Gale surface wind characterization based on the Mars Science Laboratory REMS dataset. Part I: Wind retrieval and Gale's wind speeds and directions. Icarus, 2019, 319, 909-925.	2.5	45
43	Methane seasonal cycle at Gale Crater on Mars consistent with regolith adsorption and diffusion. Nature Geoscience, 2019, 12, 321-325.	12.9	24
44	Vertical and horizontal heterogeneity of atmospheric dust loading in northern Gale Crater, Mars. Icarus, 2019, 329, 197-206.	2.5	6
45	Mars Science Laboratory Observations of the 2018/Mars Year 34 Global Dust Storm. Geophysical Research Letters, 2019, 46, 71-79.	4.0	138
46	Gale surface wind characterization based on the Mars Science Laboratory REMS dataset. Part II: Wind probability distributions. Icarus, 2019, 319, 645-656.	2.5	36
47	EOLIAN BEDFORMS IN THE REGION SURROUNDING THE INSIGHT LANDING SITE, MARS. , 2019, , .		1
48	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
49	The sensitivity of solsticial pauses to atmospheric ice and dust in the MarsWRF General Circulation Model. Icarus, 2018, 311, 23-34.	2.5	40
50	Seasonal Deposition and Lifting of Dust on Mars as Observed by the Curiosity Rover. Scientific Reports, 2018, 8, 17576.	3.3	36
51	Coarse Sediment Transport in the Modern Martian Environment. Journal of Geophysical Research E: Planets, 2018, 123, 1380-1394.	3.6	44
52	Complex bedding geometry in the upper portion of Aeolis Mons, Gale crater, Mars. Icarus, 2018, 314, 246-264.	2.5	20
53	The Bagnold Dunes in Southern Summer: Active Sediment Transport on Mars Observed by the Curiosity Rover. Geophysical Research Letters, 2018, 45, 8853-8863.	4.0	50
54	On the relationship between surface pressure, terrain elevation, and air temperature. Part I: The large diurnal surface pressure range at Gale Crater, Mars and its origin due to lateral hydrostatic adjustment. Planetary and Space Science, 2018, 164, 132-157.	1.7	30

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55	Martian aeolian activity at the Bagnold Dunes, Gale Crater: The view from the surface and orbit. Journal of Geophysical Research E: Planets, 2017, 122, 2077-2110.	3.6	77
56	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
57	Martian sand sheet characterization and implications for formation: A case study. Aeolian Research, 2017, 29, 1-11.	2.7	11
58	The Mars Dust Cycle. , 2017, , 295-337.		70
59	The Vertical Dust Profile Over Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2017, 122, 2779-2792.	3.6	22
60	An integrated model for dune morphology and sand fluxes on Mars. Earth and Planetary Science Letters, 2017, 457, 204-212.	4.4	42
61	Convective vortices and dust devils at the MSL landing site: Annual variability. Journal of Geophysical Research E: Planets, 2016, 121, 1514-1549.	3.6	55
62	Dust Devil Sediment Transport: From Lab to Field to Global Impact. Space Science Reviews, 2016, 203, 377-426.	8.1	35
63	Atmospheric tides in Gale Crater, Mars. Icarus, 2016, 268, 37-49.	2.5	45
64	Simulating Titanâ€™s methane cycle with the TitanWRF General Circulation Model. Icarus, 2016, 267, 106-134.	2.5	37
65	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
66	The impact of surface dust source exhaustion on the martian dust cycle, dust storms and interannual variability, as simulated by the MarsWRF General Circulation Model. Icarus, 2015, 257, 47-87.	2.5	66
67	Mars Science Laboratory relative humidity observations: Initial results. Journal of Geophysical Research E: Planets, 2014, 119, 2132-2147.	3.6	75
68	Threshold for sand mobility on Mars calibrated from seasonal variations of sand flux. Nature Communications, 2014, 5, 5096.	12.8	86
69	Constraints on Marsâ€™ recent equatorial wind regimes from layered deposits and comparison with general circulation model results. Icarus, 2014, 230, 81-95.	2.5	15
70	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
71	A Habitable Fluvio-Lacustrine Environment at Yellowknife Bay, Gale Crater, Mars. Science, 2014, 343, 1242777.	12.6	687
72	Marsâ€™ Surface Radiation Environment Measured with the Mars Science Laboratoryâ€™s Curiosity Rover. Science, 2014, 343, 1244797.	12.6	475

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73	The rock abrasion record at Gale Crater: Mars Science Laboratory results from Bradbury Landing to Rocknest. Journal of Geophysical Research E: Planets, 2014, 119, 1374-1389.	3.6	46
74	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
75	Pressure observations by the Curiosity rover: Initial results. Journal of Geophysical Research E: Planets, 2014, 119, 82-92.	3.6	84
76	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
77	Growth and form of the mound in Gale Crater, Mars: Slope wind enhanced erosion and transport. Geology, 2013, 41, 543-546.	4.4	147
78	Low Upper Limit to Methane Abundance on Mars. Science, 2013, 342, 355-357.	12.6	103
79	The impact of resolution on the dynamics of the martian global atmosphere: Varying resolution studies with the MarsWRF GCM. Icarus, 2012, 221, 276-288.	2.5	97
80	Atmospheric modeling of Mars methane surface releases. Planetary and Space Science, 2011, 59, 227-237.	1.7	54
81	Stratospheric superrotation in the TitanWRF model. Icarus, 2011, 213, 636-654.	2.5	81
82	PlanetWRF: A general purpose, local to global numerical model for planetary atmospheric and climate dynamics. Journal of Geophysical Research, 2007, 112, .	3.3	220
83	The atmospheric circulation and dust activity in different orbital epochs on Mars. Icarus, 2005, 174, 135-160.	2.5	80
84	A survey of Martian dust devil activity using Mars Global Surveyor Mars Orbiter Camera images. Journal of Geophysical Research, 2005, 110, n/a-n/a.	3.3	105
85	Modeling the Martian dust cycle, 1. Representations of dust transport processes. Journal of Geophysical Research, 2002, 107, 6-1-6-18.	3.3	194
86	Modeling the Martian dust cycle 2. Multiannual radiatively active dust transport simulations. Journal of Geophysical Research, 2002, 107, 7-1-7-15.	3.3	121