

Michael J Wolff

List of Publications by Year in descending order

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96
papers

8,680
citations

61687

45
h-index

48101

92
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110
all docs

110
docs citations

110
times ranked

4205
citing authors

#	ARTICLE	IF	CITATIONS
1	Explaining NOMAD D/H Observations by Cloud-Induced Fractionation of Water Vapor on Mars. Journal of Geophysical Research E: Planets, 2022, 127, .	1.5	11
2	Removal of straylight from ExoMars NOMAD-UVIS observations. Planetary and Space Science, 2022, 218, 105432.	0.9	3
3	The Emirates Mars Mission. Space Science Reviews, 2022, 218, 4.	3.7	29
4	Vertical Aerosol Distribution and Mesospheric Clouds From ExoMars UVIS. Journal of Geophysical Research E: Planets, 2022, 127, .	1.5	6
5	Calibration of the NOMAD-UVIS data. Planetary and Space Science, 2022, 218, 105504.	0.9	5
6	InSight Pressure Data Recalibration, and Its Application to the Study of Long-Term Pressure Changes on Mars. Journal of Geophysical Research E: Planets, 2022, 127, .	1.5	12
7	The dynamic atmospheric and aeolian environment of Jezero crater, Mars. Science Advances, 2022, 8, .	4.7	47
8	Planet-Wide Ozone Destruction in the Middle Atmosphere on Mars During Global Dust Storm. Geophysical Research Letters, 2022, 49, .	1.5	7
9	Another one derives the dust: Ultraviolet dust aerosol properties retrieved from MAVEN/IUVS data. Icarus, 2022, 387, 115177.	1.1	4
10	The Mars 2020 Perseverance Rover Mast Camera Zoom (Mastcam-Z) Multispectral, Stereoscopic Imaging Investigation. Space Science Reviews, 2021, 217, 24.	3.7	76
11	The case for a multi-channel polarization sensitive LIDAR for investigation of insolation-driven ices and atmospheres. , 2021, 53, .		1
12	Measuring Mars Atmospheric Winds from Orbit. , 2021, 53, .		3
13	Mars perihelion cloud trails as revealed by MARCI: Mesoscale topographically focused updrafts and gravity wave forcing of high altitude clouds. Icarus, 2021, 362, 114411.	1.1	9
14	Emirates Mars Mission Characterization of Mars Atmosphere Dynamics and Processes. Space Science Reviews, 2021, 217, .	3.7	23
15	ExoMars TGO/NOMAD-UVIS Vertical Profiles of Ozone: 2. The High-Altitude Layers of Atmospheric Ozone. Journal of Geophysical Research E: Planets, 2021, 126, e2021JE006834.	1.5	14
16	MOSAIC: A Satellite Constellation to Enable Groundbreaking Mars Climate System Science and Prepare for Human Exploration. Planetary Science Journal, 2021, 2, 211.	1.5	6
17	The Emirates Exploration Imager (EXI) Instrument on the Emirates Mars Mission (EMM) Hope Mission. Space Science Reviews, 2021, 217, 1.	3.7	16
18	ExoMars TGO/NOMAD-UVIS Vertical Profiles of Ozone: 1. Seasonal Variation and Comparison to Water. Journal of Geophysical Research E: Planets, 2021, 126, e2021JE006837.	1.5	18

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19	MARCI observations of a wavenumber-2 large-scale feature in the north polar hood of Mars: Interpretation with the NASA/Ames Legacy Global Climate Model. <i>Icarus</i> , 2020, 335, 113367.	1.1	6
20	Explanation for the Increase in High-Altitude Water on Mars Observed by NOMAD During the 2018 Global Dust Storm. <i>Geophysical Research Letters</i> , 2020, 47, e2019GL084354.	1.5	62
21	Mars's Twilight Cloud Band: A New Cloud Feature Seen During the Mars Year 34 Global Dust Storm. <i>Geophysical Research Letters</i> , 2020, 47, e2019GL084997.	1.5	16
22	Martian Water Ice Clouds During the 2018 Global Dust Storm as Observed by the ACS-MIR Channel Onboard the Trace Gas Orbiter. <i>Journal of Geophysical Research E: Planets</i> , 2020, 125, e2019JE006300.	1.5	27
23	Mapping water ice clouds on Mars with MRO/MARCI. <i>Icarus</i> , 2019, 332, 24-49.	1.1	45
24	Documentation of the NASA/Ames Legacy Mars Global Climate Model: Simulations of the present seasonal water cycle. <i>Icarus</i> , 2019, 333, 130-164.	1.1	51
25	Martian dust storm impact on atmospheric H ₂ O and D/H observed by ExoMars Trace Gas Orbiter. <i>Nature</i> , 2019, 568, 521-525.	13.7	107
26	The distribution, composition, and particle properties of Mars mesospheric aerosols: An analysis of CRISM visible/near-IR limb spectra with context from near-coincident MCS and MARCI observations. <i>Icarus</i> , 2019, 328, 246-273.	1.1	40
27	Martian dust storm activity near the Mars 2020 candidate landing sites: MRO-MARCI observations from Mars years 28-34. <i>Icarus</i> , 2019, 321, 161-170.	1.1	20
28	NOMAD, an Integrated Suite of Three Spectrometers for the ExoMars Trace Gas Mission: Technical Description, Science Objectives and Expected Performance. <i>Space Science Reviews</i> , 2018, 214, 1.	3.7	95
29	Vertical profiles of Mars 1.27- μ m O ₂ dayglow from MRO CRISM limb spectra: Seasonal/global behaviors, comparisons to LMDGCM simulations, and a global definition for Mars water vapor profiles. <i>Icarus</i> , 2017, 293, 132-156.	1.1	58
30	Seasonal Slumps in Juventae Chasma, Mars. <i>Journal of Geophysical Research E: Planets</i> , 2017, 122, 2193-2214.	1.5	14
31	Mars Clouds. , 2017, , 76-105.		24
32	Radiative Process: Techniques and Applications. , 2017, , 106-171.		21
33	The Mars Dust Cycle. , 2017, , 295-337.		70
34	End-member identification and spectral mixture analysis of CRISM hyperspectral data: A case study on southwest Melas Chasma, Mars. <i>Journal of Geophysical Research E: Planets</i> , 2016, 121, 2004-2036.	1.5	34
35	ON THE COMPOSITION OF YOUNG, DIRECTLY IMAGED GIANT PLANETS. <i>Astrophysical Journal</i> , 2016, 829, 66.	1.6	59
36	Constraints on the composition and particle size of chloride salt-bearing deposits on Mars. <i>Journal of Geophysical Research E: Planets</i> , 2016, 121, 454-471.	1.5	50

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37	Daily global mapping of Mars ozone column abundances with MARCI UV band imaging. <i>Icarus</i> , 2016, 266, 112-133.	1.1	50
38	Mars Reconnaissance Orbiter and Opportunity observations of the Burns formation: Crater hopping at Meridiani Planum. <i>Journal of Geophysical Research E: Planets</i> , 2015, 120, 429-451.	1.5	30
39	The case for a modern multiwavelength, polarization-sensitive LIDAR in orbit around Mars. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2015, 153, 131-143.	1.1	69
40	Science objectives and performances of NOMAD, a spectrometer suite for the ExoMars TGO mission. <i>Planetary and Space Science</i> , 2015, 119, 233-249.	0.9	77
41	Dust aerosol, clouds, and the atmospheric optical depth record over 5 Mars years of the Mars Exploration Rover mission. <i>Icarus</i> , 2015, 251, 96-111.	1.1	158
42	The vertical distribution of Martian aerosol particle size. <i>Journal of Geophysical Research E: Planets</i> , 2014, 119, 2694-2708.	1.5	42
43	Ancient Aqueous Environments at Endeavour Crater, Mars. <i>Science</i> , 2014, 343, 1248097.	6.0	176
44	Seasonal melting and the formation of sedimentary rocks on Mars, with predictions for the Gale Crater mound. <i>Icarus</i> , 2013, 223, 181-210.	1.1	95
45	First detection of Mars atmospheric hydroxyl: CRISM Near-IR measurement versus LMD GCM simulation of OH Meinel band emission in the Mars polar winter atmosphere. <i>Icarus</i> , 2013, 226, 272-281.	1.1	54
46	Radiometric comparison of Mars Climate Sounder and Thermal Emission spectrometer measurements. <i>Icarus</i> , 2013, 225, 28-39.	1.1	14
47	Surface scattering properties at the Opportunity Mars rover's traverse region measured by CRISM. <i>Journal of Geophysical Research E: Planets</i> , 2013, 118, 1699-1717.	1.5	15
48	Spectral constraints on the formation mechanism of recurring slope lineae. <i>Geophysical Research Letters</i> , 2013, 40, 5621-5626.	1.5	33
49	Vertical distribution of dust and water ice aerosols from CRISM limb geometry observations. <i>Journal of Geophysical Research E: Planets</i> , 2013, 118, 321-334.	1.5	74
50	Aphelion water ice cloud mapping and property retrieval using the OMEGA imaging spectrometer onboard Mars Express. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	42
51	Extensive MRO CRISM observations of 1.27 μm O_2 airglow in Mars polar night and their comparison to MRO MCS temperature profiles and LMD GCM simulations. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	51
52	Lambert albedo retrieval and analyses over Aram Chaos from OMEGA hyperspectral imaging data. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	14
53	Opportunity Mars Rover mission: Overview and selected results from Purgatory ripple to traverses to Endeavour crater. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	106
54	Revisiting the radiative impact of dust on Mars using the LMD Global Climate Model. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	145

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55	Ultraviolet dust aerosol properties as observed by MARCI. <i>Icarus</i> , 2010, 208, 143-155.	1.1	81
56	Extension of atmospheric dust loading to high altitudes during the 2001 Mars dust storm: MGS TES limb observations. <i>Icarus</i> , 2010, 207, 98-109.	1.1	87
57	Seasonal ice cycle at the Mars Phoenix landing site: 2. Postlanding CRISM and ground observations. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	15
58	An improvement to the volcano-scan algorithm for atmospheric correction of CRISM and OMEGA spectral data. <i>Planetary and Space Science</i> , 2009, 57, 809-815.	0.9	166
59	Thermal structure of the atmospheric boundary layer on Mars based on MiniTES observations. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2009, 135, 1776-1787.	1.0	14
60	Compact Reconnaissance Imaging Spectrometer for Mars investigation and data set from the Mars Reconnaissance Orbiter's primary science phase. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	178
61	Mars Reconnaissance Orbiter Mars Color Imager (MARCI): Instrument description, calibration, and performance. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	79
62	Valles Marineris cloud trails. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	15
63	Wavelength dependence of dust aerosol single scattering albedo as observed by the Compact Reconnaissance Imaging Spectrometer. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	196
64	Compact Reconnaissance Imaging Spectrometer observations of water vapor and carbon monoxide. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	137
65	Climate, weather, and north polar observations from the Mars Reconnaissance Orbiter Mars Color Imager. <i>Icarus</i> , 2008, 194, 501-512.	1.1	58
66	Mars Exploration Rover Navigation Camera in-flight calibration. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	12
67	Expected atmospheric environment for the Phoenix landing season and location. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	25
68	Geomorphologic and mineralogic characterization of the northern plains of Mars at the Phoenix Mission candidate landing sites. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	22
69	Context Camera Investigation on board the Mars Reconnaissance Orbiter. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	953
70	CRISM multispectral summary products: Parameterizing mineral diversity on Mars from reflectance. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	304
71	Compact Reconnaissance Imaging Spectrometer for Mars (CRISM) on Mars Reconnaissance Orbiter (MRO). <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	796
72	Mars equatorial mesospheric clouds: Global occurrence and physical properties from Mars Global Surveyor Thermal Emission Spectrometer and Mars Orbiter Camera limb observations. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	66

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73	MOC observations of four Mars year variations in the south polar residual cap of Mars. <i>Icarus</i> , 2007, 192, 318-326.	1.1	17
74	Overview of the Opportunity Mars Exploration Rover Mission to Meridiani Planum: Eagle Crater to Purgatory Ripple. <i>Journal of Geophysical Research</i> , 2006, 111, n/a-n/a.	3.3	149
75	Overview of the Spirit Mars Exploration Rover Mission to Gusev Crater: Landing site to Backstay Rock in the Columbia Hills. <i>Journal of Geophysical Research</i> , 2006, 111, n/a-n/a.	3.3	238
76	Chromaticity of the Martian sky as observed by the Mars Exploration Rover Pancam instruments. <i>Journal of Geophysical Research</i> , 2006, 111, n/a-n/a.	3.3	19
77	Nature and origin of the hematite-bearing plains of Terra Meridiani based on analyses of orbital and Mars Exploration rover data sets. <i>Journal of Geophysical Research</i> , 2006, 111, n/a-n/a.	3.3	144
78	One Martian year of atmospheric observations using MER Mini-TES. <i>Journal of Geophysical Research</i> , 2006, 111, n/a-n/a.	3.3	147
79	Constraints on dust aerosols from the Mars Exploration Rovers using MGS overflights and Mini-TES. <i>Journal of Geophysical Research</i> , 2006, 111, n/a-n/a.	3.3	159
80	Spectral Reflectance and Morphologic Correlations in Eastern Terra Meridiani, Mars. <i>Science</i> , 2005, 307, 1591-1594.	6.0	160
81	Application of modern radiative transfer tools to model laboratory quartz emissivity. <i>Journal of Geophysical Research</i> , 2005, 110, n/a-n/a.	3.3	33
82	Atmospheric Imaging Results from the Mars Exploration Rovers: Spirit and Opportunity. <i>Science</i> , 2004, 306, 1753-1756.	6.0	219
83	Mars aerosol studies with the MGS TES emission phase function observations: Optical depths, particle sizes, and ice cloud types versus latitude and solar longitude. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	253
84	Constraints on the size of Martian aerosols from Thermal Emission Spectrometer observations. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	203
85	Two-dimensional Radiative Transfer in Protostellar Envelopes. I. Effects of Geometry on Class I Sources. <i>Astrophysical Journal</i> , 2003, 591, 1049-1063.	1.6	388
86	Regression of the Mountains of Mitchel polar ice after the onset of a global dust storm on Mars. <i>Geophysical Research Letters</i> , 2002, 29, 13-1.	1.5	23
87	Martian dust storms: 1999 Mars Orbiter Camera observations. <i>Journal of Geophysical Research</i> , 2001, 106, 23653-23687.	3.3	250
88	An intercomparison of ground-based millimeter, MGS TES, and Viking atmospheric temperature measurements: Seasonal and interannual variability of temperatures and dust loading in the global Mars atmosphere. <i>Journal of Geophysical Research</i> , 2000, 105, 9553-9571.	3.3	340
89	Minimal Aerosol Loading and Global Increases in Atmospheric Ozone during the 1996-1997 Martian Northern Spring Season. <i>Icarus</i> , 1999, 138, 49-63.	1.1	77
90	North Polar Dust Storms in Early Spring on Mars. <i>Icarus</i> , 1999, 138, 64-73.	1.1	40

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91	Hubble Space Telescope observations of the Martian aphelion cloud belt prior to the Pathfinder mission: Seasonal and interannual variations. <i>Journal of Geophysical Research</i> , 1999, 104, 9027-9041.	3.3	71
92	Regression of Martian North Polar Cap: 1990â€“1997 Hubble Space Telescope Observations. <i>Icarus</i> , 1998, 136, 175-191.	1.1	29
93	Ultraviolet Interstellar Linear Polarization. III. Features. <i>Astrophysical Journal</i> , 1997, 478, 395-402.	1.6	33
94	1995 observations of Martian dust storms using the Hubble Space Telescope. <i>Journal of Geophysical Research</i> , 1997, 102, 1679-1692.	3.3	39
95	Mars ozone measurements near the 1995 aphelion: Hubble space telescope ultraviolet spectroscopy with the faint object spectrograph. <i>Journal of Geophysical Research</i> , 1996, 101, 12777-12783.	3.3	45
96	Global imaging of Mars by Hubble space telescope during the 1995 opposition. <i>Journal of Geophysical Research</i> , 1996, 101, 18883-18890.	3.3	54