

Justin Deighan

List of Publications by Year in descending order

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Version: 2024-02-01

63
papers

2,433
citations

201674

27
h-index

206112

48
g-index

69
all docs

69
docs citations

69
times ranked

1277
citing authors

#	ARTICLE	IF	CITATIONS
1	Loss of the Martian atmosphere to space: Present-day loss rates determined from MAVEN observations and integrated loss through time. <i>Icarus</i> , 2018, 315, 146-157.	2.5	216
2	MAVEN observations of the response of Mars to an interplanetary coronal mass ejection. <i>Science</i> , 2015, 350, aad0210.	12.6	166
3	The Imaging Ultraviolet Spectrograph (IUVS) for the MAVEN Mission. <i>Space Science Reviews</i> , 2015, 195, 75-124.	8.1	139
4	The structure and variability of Mars dayside thermosphere from MAVEN NGIMS and IUVS measurements: Seasonal and solar activity trends in scale heights and temperatures. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 1296-1313.	2.4	124
5	Photochemical escape of oxygen from Mars: First results from MAVEN in situ data. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 3815-3836.	2.4	106
6	Elevated atmospheric escape of atomic hydrogen from Mars induced by high-altitude water. <i>Nature Geoscience</i> , 2017, 10, 174-178.	12.9	105
7	Characterizing Atmospheric Escape from Mars Today and Through Time, with MAVEN. <i>Space Science Reviews</i> , 2015, 195, 357-422.	8.1	99
8	The structure and variability of Mars upper atmosphere as seen in MAVEN/IUVS dayglow observations. <i>Geophysical Research Letters</i> , 2015, 42, 9023-9030.	4.0	95
9	Early MAVEN Deep Dip campaign reveals thermosphere and ionosphere variability. <i>Science</i> , 2015, 350, aad0459.	12.6	90
10	MAVEN IUVS observation of the hot oxygen corona at Mars. <i>Geophysical Research Letters</i> , 2015, 42, 9009-9014.	4.0	77
11	Three-dimensional structure in the Mars H corona revealed by IUVS on MAVEN. <i>Geophysical Research Letters</i> , 2015, 42, 9001-9008.	4.0	67
12	MAVEN/IUVS Stellar Occultation Measurements of Mars Atmospheric Structure and Composition. <i>Journal of Geophysical Research E: Planets</i> , 2018, 123, 1449-1483.	3.6	56
13	Discovery of a proton aurora at Mars. <i>Nature Astronomy</i> , 2018, 2, 802-807.	10.1	50
14	Simultaneous observations of atmospheric tides from combined in situ and remote observations at Mars from the MAVEN spacecraft. <i>Journal of Geophysical Research E: Planets</i> , 2016, 121, 594-607.	3.6	48
15	Global Aurora on Mars During the September 2017 Space Weather Event. <i>Geophysical Research Letters</i> , 2018, 45, 7391-7398.	4.0	44
16	Nonmigrating tides in the Martian atmosphere as observed by MAVEN IUVS. <i>Geophysical Research Letters</i> , 2015, 42, 9057-9063.	4.0	43
17	Retrieval of CO ₂ and N ₂ in the Martian thermosphere using dayglow observations by IUVS on MAVEN. <i>Geophysical Research Letters</i> , 2015, 42, 9040-9049.	4.0	43
18	Probing the Martian atmosphere with MAVEN/IUVS stellar occultations. <i>Geophysical Research Letters</i> , 2015, 42, 9064-9070.	4.0	42

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19	Mars H Escape Rates Derived From MAVEN/IUVS Lyman Alpha Brightness Measurements and Their Dependence on Model Assumptions. <i>Journal of Geophysical Research E: Planets</i> , 2018, 123, 2192-2210.	3.6	42
20	New observations of molecular nitrogen in the Martian upper atmosphere by IUVS on MAVEN. <i>Geophysical Research Letters</i> , 2015, 42, 9050-9056.	4.0	41
21	Martian water loss to space enhanced by regional dust storms. <i>Nature Astronomy</i> , 2021, 5, 1036-1042.	10.1	40
22	The Mars Topside Ionosphere Response to the X8.2 Solar Flare of 10 September 2017. <i>Geophysical Research Letters</i> , 2018, 45, 8005-8013.	4.0	38
23	A comparison of 3D model predictions of Mars' oxygen corona with early MAVEN IUVS observations. <i>Geophysical Research Letters</i> , 2015, 42, 9015-9022.	4.0	35
24	Comparison of the Martian thermospheric density and temperature from IUVS/MAVEN data and general circulation modeling. <i>Geophysical Research Letters</i> , 2016, 43, 3095-3104.	4.0	34
25	Martian Thermospheric Warming Associated With the Planet Encircling Dust Event of 2018. <i>Geophysical Research Letters</i> , 2020, 47, e2019GL085302.	4.0	34
26	Significant Space Weather Impact on the Escape of Hydrogen From Mars. <i>Geophysical Research Letters</i> , 2018, 45, 8844-8852.	4.0	29
27	The Emirates Mars Mission. <i>Space Science Reviews</i> , 2022, 218, 4.	8.1	29
28	On the Origins of Mars' Exospheric Nonthermal Oxygen Component as Observed by MAVEN and Modeled by HELIOSARES. <i>Journal of Geophysical Research E: Planets</i> , 2017, 122, 2401-2428.	3.6	27
29	Martian Thermospheric Response to an X8.2 Solar Flare on 10 September 2017 as Seen by MAVEN/IUVS. <i>Geophysical Research Letters</i> , 2018, 45, 7312-7319.	4.0	24
30	Atmospheric Tides at High Latitudes in the Martian Upper Atmosphere Observed by MAVEN and MRO. <i>Journal of Geophysical Research: Space Physics</i> , 2019, 124, 2943-2953.	2.4	24
31	Proton Aurora on Mars: A Dayside Phenomenon Pervasive in Southern Summer. <i>Journal of Geophysical Research: Space Physics</i> , 2019, 124, 10533-10548.	2.4	24
32	Martian mesospheric cloud observations by IUVS on MAVEN: Thermal tides coupled to the upper atmosphere. <i>Geophysical Research Letters</i> , 2017, 44, 4709-4715.	4.0	23
33	Emirates Mars Mission Characterization of Mars Atmosphere Dynamics and Processes. <i>Space Science Reviews</i> , 2021, 217, .	8.1	23
34	Enhanced water loss from the martian atmosphere during a regional-scale dust storm and implications for long-term water loss. <i>Earth and Planetary Science Letters</i> , 2021, 571, 117109.	4.4	22
35	Study of the Martian cold oxygen corona from the O ⁺ 130.4 nm by IUVS/MAVEN. <i>Geophysical Research Letters</i> , 2015, 42, 9031-9039.	4.0	21
36	Discrete Aurora on Mars: Insights Into Their Distribution and Activity From MAVEN/IUVS Observations. <i>Journal of Geophysical Research: Space Physics</i> , 2021, 126, e2021JA029428.	2.4	20

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37	Localized Ionization Hypothesis for Transient Ionospheric Layers. <i>Journal of Geophysical Research: Space Physics</i> , 2019, 124, 4870-4880.	2.4	19
38	Vertical Propagation of Wave Perturbations in the Middle Atmosphere on Mars by MAVEN/IUVS. <i>Journal of Geophysical Research E: Planets</i> , 2020, 125, e2020JE006481.	3.6	18
39	The Emirates Mars Ultraviolet Spectrometer (EMUS) for the EMM Mission. <i>Space Science Reviews</i> , 2021, 217, 1.	8.1	17
40	IUVS echelle mode observations of interplanetary hydrogen: Standard for calibration and reference for cavity variations between Earth and Mars during MAVEN cruise. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 2089-2105.	2.4	16
41	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.	4.0	16
42	Thermal structure of Mars's middle and upper atmospheres: Understanding the impacts of dynamics and solar forcing. <i>Icarus</i> , 2023, 393, 114703.	2.5	16
43	The Variability of Atmospheric Deuterium Brightness at Mars: Evidence for Seasonal Dependence. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 10,811.	2.4	15
44	The Impact of Comet Siding Spring's Meteors on the Martian Atmosphere and Ionosphere. <i>Journal of Geophysical Research E: Planets</i> , 2018, 123, 2613-2627.	3.6	14
45	Higher Martian Atmospheric Temperatures at All Altitudes Increase the D/H Fractionation Factor and Water Loss. <i>Journal of Geophysical Research E: Planets</i> , 2020, 125, e2020JE006626.	3.6	14
46	Detection of Mesospheric CO ₂ Ice Clouds on Mars in Southern Summer. <i>Geophysical Research Letters</i> , 2019, 46, 7962-7971.	4.0	13
47	Seasonal Variability of Deuterium in the Upper Atmosphere of Mars. <i>Journal of Geophysical Research: Space Physics</i> , 2019, 124, 2152-2164.	2.4	13
48	Detection of the Nitric Oxide Dayglow on Mars by MAVEN/IUVS. <i>Journal of Geophysical Research E: Planets</i> , 2019, 124, 1226-1237.	3.6	13
49	Effect of the 2018 Martian Global Dust Storm on the CO ₂ Density in the Lower Nightside Thermosphere Observed From MAVEN/IUVS Lyman- α Absorption. <i>Geophysical Research Letters</i> , 2020, 47, e2019GL082889.	4.0	13
50	Imaging of Martian Circulation Patterns and Atmospheric Tides Through MAVEN/IUVS Nightglow Observations. <i>Journal of Geophysical Research: Space Physics</i> , 2020, 125, e2019JA027318.	2.4	13
51	UV Study of the Fourth Positive Band System of CO and O λ 135.6 nm From Electron Impact on CO and CO ₂ . <i>Journal of Geophysical Research: Space Physics</i> , 2019, 124, 2954-2977.	2.4	12
52	Ultraviolet observations of the hydrogen coma of comet C/2013 A1 (Siding Spring) by MAVEN/IUVS. <i>Geophysical Research Letters</i> , 2015, 42, 8803-8809.	4.0	11
53	A Warm Layer in the Nightside Mesosphere of Mars. <i>Geophysical Research Letters</i> , 2020, 47, e2019GL085646.	4.0	9
54	Two-dimensional model for the martian exosphere: Applications to hydrogen and deuterium Lyman α observations. <i>Icarus</i> , 2020, 339, 113573.	2.5	8

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55	Seasonal and Latitudinal Variations of Dayside N_2/CO_2 Ratio in the Martian Thermosphere Derived From MAVEN IUVS Observations. <i>Journal of Geophysical Research E: Planets</i> , 2020, 125, e2020JE006378.	3.6	8
56	Discrete Aurora at Mars: Dependence on Upstream Solar Wind Conditions. <i>Journal of Geophysical Research: Space Physics</i> , 2022, 127, .	2.4	7
57	Martian Oxygen and Hydrogen Upper Atmospheres Responding to Solar and Dust Storm Drivers: Hisaki Space Telescope Observations. <i>Journal of Geophysical Research E: Planets</i> , 2020, 125, e2020JE006500.	3.6	6
58	Estimate of the D/H Ratio in the Martian Upper Atmosphere from the Low Spectral Resolution Mode of MAVEN/IUVS. <i>Journal of Geophysical Research E: Planets</i> , 2021, 126, e2020JE006814.	3.6	6
59	MOSAIC: A Satellite Constellation to Enable Groundbreaking Mars Climate System Science and Prepare for Human Exploration. <i>Planetary Science Journal</i> , 2021, 2, 211.	3.6	6
60	Another one derives the dust: Ultraviolet dust aerosol properties retrieved from MAVEN/IUVS data. <i>Icarus</i> , 2022, 387, 115177.	2.5	4
61	$Ly\alpha$ Observations of Comet C/2013 A1 (Siding Spring) Using MAVEN IUVS Echelle. <i>Astronomical Journal</i> , 2020, 160, 10.	4.7	3
62	MAVEN/IUVS observations of $C\ I\ 156.1\text{Å}$ and 165.7Å dayglow: Direct detection of carbon and implications on photochemical escape. <i>Icarus</i> , 2022, 371, 114664.	2.5	2
63	Observations and Modeling of Martian Auroras. <i>Space Science Reviews</i> , 2022, 218, .	8.1	1