Justin Deighan

List of Publications by Year in descending order

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	Thermal structure of Marsâ€™ middle and upper atmospheres: Understanding the impacts of dynamics and solar forcing. Icarus, 2023, 393, 114703.	2.5	16
2	MAVEN/IUVS observations of CÂl 156.1Ânm and 165.7Ânm dayglow: Direct detection of carbon and implications on photochemical escape. Icarus, 2022, 371, 114664.	2.5	2
3	The Emirates Mars Mission. Space Science Reviews, 2022, 218, 4.	8.1	29
4	Discrete Aurora at Mars: Dependence on Upstream Solar Wind Conditions. Journal of Geophysical Research: Space Physics, 2022, 127, .	2.4	7
5	Observations and Modeling of Martian Auroras. Space Science Reviews, 2022, 218, .	8.1	1
6	Another one derives the dust: Ultraviolet dust aerosol properties retrieved from MAVEN/IUVS data. Icarus, 2022, 387, 115177.	2.5	4
7	Estimate of the D/H Ratio in the Martian Upper Atmosphere from the Low Spectral Resolution Mode of MAVEN/IUVS. Journal of Geophysical Research E: Planets, 2021, 126, e2020JE006814.	3.6	6
8	Martian water loss to space enhanced by regional dust storms. Nature Astronomy, 2021, 5, 1036-1042.	10.1	40
9	Discrete Aurora on Mars: Insights Into Their Distribution and Activity From MAVEN/IUVS Observations. Journal of Geophysical Research: Space Physics, 2021, 126, e2021JA029428.	2.4	20
10	Enhanced water loss from the martian atmosphere during a regional-scale dust storm and implications for long-term water loss. Earth and Planetary Science Letters, 2021, 571, 117109.	4.4	22
11	Emirates Mars Mission Characterization of Mars Atmosphere Dynamics and Processes. Space Science Reviews, 2021, 217, .	8.1	23
12	The Emirates Mars Ultraviolet Spectrometer (EMUS) for the EMM Mission. Space Science Reviews, 2021, 217, 1.	8.1	17
13	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
14	Effect of the 2018 Martian Global Dust Storm on the CO₂ Density in the Lower Nightside Thermosphere Observed From MAVEN/IUVS Lymanâ€Alpha Absorption. Geophysical Research Letters, 2020, 47, e2019GL082889.	4.0	13
15	Martian Thermospheric Warming Associated With the Planet Encircling Dust Event of 2018. Geophysical Research Letters, 2020, 47, e2019GL085302.	4.0	34
16	Mars's Twilight Cloud Band: A New Cloud Feature Seen During the Mars Year 34 Global Dust Storm. Geophysical Research Letters, 2020, 47, e2019GL084997.	4.0	16
17	Two-dimensional model for the martian exosphere: Applications to hydrogen and deuterium Lyman Î± observations. Icarus, 2020, 339, 113573.	2.5	8
18	Vertical Propagation of Wave Perturbations in the Middle Atmosphere on Mars by MAVEN/IUVS. Journal of Geophysical Research E: Planets, 2020, 125, e2020JE006481.	3.6	18

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19	Martian Oxygen and Hydrogen Upper Atmospheres Responding to Solar and Dust Storm Drivers: Hisaki Space Telescope Observations. Journal of Geophysical Research E: Planets, 2020, 125, e2020JE006500.	3.6	6
20	Seasonal and Latitudinal Variations of Dayside N₂/CO₂ Ratio in the Martian Thermosphere Derived From MAVEN IUVS Observations. Journal of Geophysical Research E: Planets, 2020, 125, e2020JE006378.	3.6	8
21	Imaging of Martian Circulation Patterns and Atmospheric Tides Through MAVEN/IUVS Nightglow Observations. Journal of Geophysical Research: Space Physics, 2020, 125, e2019JA027318.	2.4	13
22	Higher Martian Atmospheric Temperatures at All Altitudes Increase the D/H Fractionation Factor and Water Loss. Journal of Geophysical Research E: Planets, 2020, 125, e2020JE006626.	3.6	14
23	LyÎ± Observations of Comet C/2013 A1 (Siding Spring) Using MAVEN IUVS Echelle. Astronomical Journal, 2020, 160, 10.	4.7	3
24	A Warm Layer in the Nightside Mesosphere of Mars. Geophysical Research Letters, 2020, 47, e2019GL085646.	4.0	9
25	Detection of Mesospheric CO₂ Ice Clouds on Mars in Southern Summer. Geophysical Research Letters, 2019, 46, 7962-7971.	4.0	13
26	Localized Ionization Hypothesis for Transient Ionospheric Layers. Journal of Geophysical Research: Space Physics, 2019, 124, 4870-4880.	2.4	19
27	Seasonal Variability of Deuterium in the Upper Atmosphere of Mars. Journal of Geophysical Research: Space Physics, 2019, 124, 2152-2164.	2.4	13
28	Detection of the Nitric Oxide Dayglow on Mars by MAVEN/IUVS. Journal of Geophysical Research E: Planets, 2019, 124, 1226-1237.	3.6	13
29	Atmospheric Tides at High Latitudes in the Martian Upper Atmosphere Observed by MAVEN and MRO. Journal of Geophysical Research: Space Physics, 2019, 124, 2943-2953.	2.4	24
30	UV Study of the Fourth Positive Band System of CO and O <scp>i</scp> 135.6Ânm From Electron Impact on CO and CO₂. Journal of Geophysical Research: Space Physics, 2019, 124, 2954-2977.	2.4	12
31	Proton Aurora on Mars: A Dayside Phenomenon Pervasive in Southern Summer. Journal of Geophysical Research: Space Physics, 2019, 124, 10533-10548.	2.4	24
32	Mars H Escape Rates Derived From MAVEN/IUVS Lyman Alpha Brightness Measurements and Their Dependence on Model Assumptions. Journal of Geophysical Research E: Planets, 2018, 123, 2192-2210.	3.6	42
33	The Impact of Comet Siding Spring's Meteors on the Martian Atmosphere and Ionosphere. Journal of Geophysical Research E: Planets, 2018, 123, 2613-2627.	3.6	14
34	Global Aurora on Mars During the September 2017 Space Weather Event. Geophysical Research Letters, 2018, 45, 7391-7398.	4.0	44
35	Loss of the Martian atmosphere to space: Present-day loss rates determined from MAVEN observations and integrated loss through time. Icarus, 2018, 315, 146-157.	2.5	216
36	Discovery of a proton aurora at Mars. Nature Astronomy, 2018, 2, 802-807.	10.1	50

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37	Significant Space Weather Impact on the Escape of Hydrogen From Mars. Geophysical Research Letters, 2018, 45, 8844-8852.	4.0	29
38	Martian Thermospheric Response to an X8.2 Solar Flare on 10 September 2017 as Seen by MAVEN/IUVS. Geophysical Research Letters, 2018, 45, 7312-7319.	4.0	24
39	The Mars Topside Ionosphere Response to the X8.2 Solar Flare of 10 September 2017. Geophysical Research Letters, 2018, 45, 8005-8013.	4.0	38
40	MAVEN/IUVS Stellar Occultation Measurements of Mars Atmospheric Structure and Composition. Journal of Geophysical Research E: Planets, 2018, 123, 1449-1483.	3.6	56
41	Elevated atmospheric escape of atomic hydrogen from Mars induced by high-altitude water. Nature Geoscience, 2017, 10, 174-178.	12.9	105
42	Photochemical escape of oxygen from Mars: First results from MAVEN in situ data. Journal of Geophysical Research: Space Physics, 2017, 122, 3815-3836.	2.4	106
43	Martian mesospheric cloud observations by IUVS on MAVEN: Thermal tides coupled to the upper atmosphere. Geophysical Research Letters, 2017, 44, 4709-4715.	4.0	23
44	The structure and variability of Mars dayside thermosphere from MAVEN NGIMS and IUVS measurements: Seasonal and solar activity trends in scale heights and temperatures. Journal of Geophysical Research: Space Physics, 2017, 122, 1296-1313.	2.4	124
45	IUVS echelleâ€mode observations of interplanetary hydrogen: Standard for calibration and reference for cavity variations between Earth and Mars during MAVEN cruise. Journal of Geophysical Research: Space Physics, 2017, 122, 2089-2105.	2.4	16
46	On the Origins of Mars' Exospheric Nonthermal Oxygen Component as Observed by MAVEN and Modeled by HELIOSARES. Journal of Geophysical Research E: Planets, 2017, 122, 2401-2428.	3.6	27
47	The Variability of Atmospheric Deuterium Brightness at Mars: Evidence for Seasonal Dependence. Journal of Geophysical Research: Space Physics, 2017, 122, 10,811.	2.4	15
48	Simultaneous observations of atmospheric tides from combined in situ and remote observations at Mars from the MAVEN spacecraft. Journal of Geophysical Research E: Planets, 2016, 121, 594-607.	3.6	48
49	Comparison of the Martian thermospheric density and temperature from IUVS/MAVEN data and general circulation modeling. Geophysical Research Letters, 2016, 43, 3095-3104.	4.0	34
50	Characterizing Atmospheric Escape from Mars Today and Through Time, with MAVEN. Space Science Reviews, 2015, 195, 357-422.	8.1	99
51	Ultraviolet observations of the hydrogen coma of comet C/2013 A1 (Siding Spring) by MAVEN/IUVS. Geophysical Research Letters, 2015, 42, 8803-8809.	4.0	11
52	Nonmigrating tides in the Martian atmosphere as observed by MAVEN IUVS. Geophysical Research Letters, 2015, 42, 9057-9063.	4.0	43
53	Retrieval of CO₂ and N₂ in the Martian thermosphere using dayglow observations by IUVS on MAVEN. Geophysical Research Letters, 2015, 42, 9040-9049.	4.0	43
54	Study of the Martian cold oxygen corona from the Oâ€‰I 130.4â€‰nm by IUVS/MAVEN. Geophysical Research Letters, 2015, 42, 9031-9039.	4.0	21

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55	The structure and variability of Mars upper atmosphere as seen in MAVEN/IUVS dayglow observations. Geophysical Research Letters, 2015, 42, 9023-9030.	4.0	95
56	Threeâ€dimensional structure in the Mars H corona revealed by IUVS on MAVEN. Geophysical Research Letters, 2015, 42, 9001-9008.	4.0	67
57	MAVEN IUVS observation of the hot oxygen corona at Mars. Geophysical Research Letters, 2015, 42, 9009-9014.	4.0	77
58	New observations of molecular nitrogen in the Martian upper atmosphere by IUVS on MAVEN. Geophysical Research Letters, 2015, 42, 9050-9056.	4.0	41
59	A comparison of 3â€D model predictions of Mars' oxygen corona with early MAVEN IUVS observations. Geophysical Research Letters, 2015, 42, 9015-9022.	4.0	35
60	Probing the Martian atmosphere with MAVEN/IUVS stellar occultations. Geophysical Research Letters, 2015, 42, 9064-9070.	4.0	42
61	The Imaging Ultraviolet Spectrograph (IUVS) for the MAVEN Mission. Space Science Reviews, 2015, 195, 75-124.	8.1	139
62	MAVEN observations of the response of Mars to an interplanetary coronal mass ejection. Science, 2015, 350, aad0210.	12.6	166
63	Early MAVEN Deep Dip campaign reveals thermosphere and ionosphere variability. Science, 2015, 350, aad0459.	12.6	90