Michael Mendillo

List of Publications by Year
in descending order

120	4,354	76326	123424
papers	citations	40 h-index	61 g-index

122	122	122	2719
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Storms in the ionosphere: Patterns and processes for total electron content. Reviews of Geophysics, 2006, 44, .	23.0	415
2	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
3	Effects of Solar Flares on the Ionosphere of Mars. Science, 2006, 311, 1135-1138.	12.6	147
4	The application of GPS observations to equatorial aeronomy. Radio Science, 2000, 35, 885-904.	1.6	115
5	GPS phase fluctuations in the equatorial region during sunspot minimum. Radio Science, 1997, 32, 1535-1550.	1.6	96
6	Latitude dependence of zonal plasma drifts obtained from dual-site airglow observations. Journal of Geophysical Research, 2003, 108, .	3.3	92
7	The extended sodium nebula of Jupiter. Nature, 1990, 348, 312-314.	27.8	91
8	Behavior of the ionosphericFregion during the Great Solar Flare of August 7, 1972. Journal of Geophysical Research, 1974, 79, 665-672.	3.3	88
9	A multidiagnostic investigation of the mesospheric bore phenomenon. Journal of Geophysical Research, 2003, 108, .	3.3	83
10	Modeling of global variations and ring shadowing in Saturn's ionosphere. Icarus, 2004, 172, 503-520.	2.5	82
11	Seasonal dependence of MSTIDs obtained from 630.0 nm airglow imaging at Arecibo. Geophysical Research Letters, 2010, 37, .	4.0	80
12	Discovery of the distant lunar sodium tail and its enhancement following the Leonid Meteor Shower of 1998. Geophysical Research Letters, 1999, 26, 1649-1652.	4.0	79
13	Modeling Mars' ionosphere with constraints from same-day observations by Mars Global Surveyor and Mars Express. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	72
14	Ionospheric characteristics above Martian crustal magnetic anomalies. Geophysical Research Letters, 2005, 32, .	4.0	69
15	Observational Test for the Solar Wind Sputtering Origin of the Moon's Extended Sodium Atmosphere. Icarus, 1999, 137, 13-23.	2.5	67
16	Physical characteristics and occurrence rates of meteoric plasma layers detected in the Martian ionosphere by the Mars Global Surveyor Radio Science Experiment. Journal of Geophysical Research, 2008, 113, .	3.3	66
17	Ionospheric layers of Mars and Earth. Planetary and Space Science, 2004, 52, 849-852.	1.7	63
18	Response of peak electron densities in the martian ionosphere to day-to-day changes in solar flux due to solar rotation. Planetary and Space Science, 2005, 53, 1401-1418.	1.7	63

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19	Simultaneous ionospheric variability on Earth and Mars. Journal of Geophysical Research, 2003, 108, .	3.3	61
20	The composition of Mars' topside ionosphere: Effects of hydrogen. Journal of Geophysical Research: Space Physics, 2013, 118, 2681-2693.	2.4	61
21	Numerical simulations of ion and electron temperatures in the ionosphere of Mars: Multiple ions and diurnal variations. Icarus, 2014, 227, 78-88.	2.5	60
22	Incoherent scatter observations of the ionospheric response to a large solar flare. Radio Science, 1974, 9, 197-203.	1.6	57
23	Latitudinal variations in Saturn's ionosphere: Cassini measurements and model comparisons. Journal of Geophysical Research, 2010, 115, .	3.3	55
24	Constraints on the origin of the Moon's atmosphere from observations during a lunar eclipse. Nature, 1995, 377, 404-406.	27.8	52
25	Modeling an enhancement of the lunar sodium tail during the Leonid Meteor Shower of 1998. Geophysical Research Letters, 1999, 26, 1645-1648.	4.0	51
26	Response of Saturn's auroral ionosphere to electron precipitation: Electron density, electron temperature, and electrical conductivity. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	50
27	Imaging observations of the extended sodium atmosphere of the Moon. Geophysical Research Letters, 1991, 18, 2097-2100.	4.0	48
28	Solar System Ionospheres. Space Science Reviews, 2008, 139, 235-265.	8.1	48
29	Evidence of mesospheric gravityâ€waves generated by orographic forcing in the troposphere. Geophysical Research Letters, 2009, 36, .	4.0	48
30	Solar primary and secondary ionization at Saturn. Journal of Geophysical Research, 2009, 114, .	3.3	48
31	SIMBIO-SYS: Scientific Cameras and Spectrometer for the BepiColombo Mission. Space Science Reviews, 2020, 216, 1.	8.1	47
32	Cassini radio occultations of Saturn's ionosphere: Model comparisons using a constant water flux. Geophysical Research Letters, 2006, 33, .	4.0	46
33	Interpreting Mars ionospheric anomalies over crustal magnetic field regions using a 2â€D ionospheric model. Journal of Geophysical Research: Space Physics, 2015, 120, 766-777.	2.4	46
34	A Picture of the Moon's Atmosphere. Science, 1993, 261, 184-186.	12.6	45
35	Magnetospheric influence on the Moon's exosphere. Journal of Geophysical Research, 2006, 111, .	3.3	45
36	Suppression of equatorial spreadFby sporadicE. Journal of Geophysical Research, 2002, 107, SIA 4-1-SIA 4-5.	3.3	44

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37	Equatorial spread Fâ€related airglow depletions at Arecibo and conjugate observations. Journal of Geophysical Research, 2007, 112, .	3.3	44
38	Observations and modeling of the coupled latitude-altitude patterns of equatorial plasma depletions. Journal of Geophysical Research, 2005, 110, .	3.3	43
39	A very bright SAR arc: implications for extreme magnetosphere-ionosphere coupling. Annales Geophysicae, 2007, 25, 2593-2608.	1.6	42
40	Plasma temperatures in Saturn's ionosphere. Journal of Geophysical Research, 2008, 113, .	3.3	41
41	Sources of Ionospheric Variability at Mars. Journal of Geophysical Research: Space Physics, 2017, 122, 9670-9684.	2.4	40
42	Brightening of 630.0 nm equatorial spreadâ€F airglow depletions. Journal of Geophysical Research, 2009, 114, .	3.3	39
43	Total electron content: Synthesis of past storm studies and needed future work. Radio Science, 2006, 41, .	1.6	37
44	A new semiempirical model of the peak electron density of the Martian ionosphere. Geophysical Research Letters, 2013, 40, 5361-5365.	4.0	37
45	Imaging the sources and full extent of the sodium tail of the planet Mercury. Geophysical Research Letters, 2008, 35, .	4.0	35
46	First Ionospheric Results From the MAVEN Radio Occultation Science Experiment (ROSE). Journal of Geophysical Research: Space Physics, 2018, 123, 4171-4180.	2.4	35
47	Mars' Ionopause: A Matter of Pressures. Journal of Geophysical Research: Space Physics, 2020, 125, e2020JA028145.	2.4	35
48	Ionospheric effects upon a satellite navigation system at Mars. Radio Science, 2004, 39, n/a-n/a.	1.6	34
49	Manâ€made space weather. Space Weather, 2008, 6, .	3.7	32
50	All-sky imaging observations of conjugate medium-scale traveling ionospheric disturbances in the American sector. Journal of Geophysical Research, 2011, 116, .	3.3	32
51	All-sky-imaging capabilities for ionospheric space weather research using geomagnetic conjugate point observing sites. Advances in Space Research, 2018, 61, 1636-1651.	2.6	31
52	Three tails of comet Hale-Bopp. Geophysical Research Letters, 1998, 25, 225-228.	4.0	30
53	The sodium tail of the Moon. Icarus, 2009, 204, 409-417.	2.5	30
54	Are plasma depletions in Saturn's ionosphere a signature of time-dependent water input?. Geophysical Research Letters, 2007, 34, .	4.0	29

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55	Solar system ionospheres. Geophysical Monograph Series, 2002, , 39-54.	0.1	27
56	Escape rates and variability constraints for highâ€energy sodium sources at Mercury. Journal of Geophysical Research, 2012, 117, .	3.3	27
57	SAR arcs we have seen: Evidence for variability in stable auroral red arcs. Journal of Geophysical Research: Space Physics, 2016, 121, 245-262.	2.4	27
58	The MAVEN Radio Occultation Science Experiment (ROSE). Space Science Reviews, 2020, 216, 1.	8.1	26
59	Optical observations of the AMPTE artificial comet from the Northern Hemisphere. Nature, 1986, 320, 704-708.	27.8	25
60	Simulations of the lunar sodium atmosphere. Journal of Geophysical Research, 1995, 100, 23271.	3.3	25
61	Characterization of exceptionally strong mesospheric wave events using all-sky and zenith airglow observations. Journal of Geophysical Research, 2006, 111, .	3.3	25
62	Day-by-day modelling of the ionospheric F2-layer for year 2002. Journal of Atmospheric and Solar-Terrestrial Physics, 2009, 71, 848-856.	1.6	24
63	The night when the auroral and equatorial ionospheres converged. Journal of Geophysical Research: Space Physics, 2015, 120, 8085-8095.	2.4	24
64	Day-to-day variability of theElayer. Journal of Geophysical Research, 2006, 111, .	3.3	22
65	Preliminary report on the HEAO hole in the ionosphere. Eos, 1980, 61, 529.	0.1	21
66	The 1999 Quadrantids and the lunar Na atmosphere. Monthly Notices of the Royal Astronomical Society, 2001, 327, 244-248.	4.4	21
67	Simulation studies of ionospheric airglow signatures of plasma depletions at the equator. Journal of Atmospheric and Solar-Terrestrial Physics, 1985, 47, 885-893.	0.9	20
68	Polarization jet events and excitation of weak SAR arcs. Geophysical Research Letters, 2002, 29, 26-1.	4.0	20
69	Effects of ring shadowing on the detection of electrostatic discharges at Saturn. Geophysical Research Letters, 2005, 32, .	4.0	20
70	The sources of sodium escaping from Io revealed by spectral high definition imaging. Nature, 2007, 448, 330-332.	27.8	20
71	Characterization of a Double Mesospheric Bore Over Europe. Journal of Geophysical Research: Space Physics, 2017, 122, 9738-9750.	2.4	20
72	Atmospheric Waves and Their Possible Effect on the Thermal Structure of Saturn's Thermosphere. Geophysical Research Letters, 2019, 46, 2372-2380.	4.0	20

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73	Allâ€sky imaging of transglobal thermospheric gravity waves generated by the March 2011 Tohoku Earthquake. Journal of Geophysical Research: Space Physics, 2015, 120, 10,992.	2.4	19
74	Low frequency radio astronomy through an artificially created ionospheric window. Nature, 1975, 255, 42-44.	27.8	18
75	Modeling the Moon's extended sodium cloud as a tool for investigating sources of transient atmospheres. Advances in Space Research, 1997, 19, 1577-1586.	2.6	18
76	First Conjugate Observations of Mediumâ€Scale Traveling Ionospheric Disturbances (MSTIDs) in the Europeâ€Africa Longitude Sector. Journal of Geophysical Research: Space Physics, 2019, 124, 2213-2222.	2.4	18
77	Monitoring the moon's transient atmosphere with an all-sky imager. Advances in Space Research, 2001, 27, 1181-1187.	2.6	17
78	Variability in ionospheric total electron content at Mars. Planetary and Space Science, 2013, 86, 117-129.	1.7	16
79	The outer limits of the lunar sodium exosphere. Geophysical Research Letters, 2003, 30, .	4.0	15
80	MAVEN and the Mars Initial Reference Ionosphere model. Geophysical Research Letters, 2015, 42, 9080-9086.	4.0	15
81	Imaging magnetospheric boundaries at ionospheric heights. Journal of Geophysical Research: Space Physics, 2013, 118, 7294-7305.	2.4	14
82	Imaging space weather over Europe. Space Weather, 2013, 11, 69-78.	3.7	13
83	A stable auroral red (SAR) arc with multiple emission features. Journal of Geophysical Research: Space Physics, 2016, 121, 10,564.	2.4	12
84	MAVEN and the total electron content of the Martian ionosphere. Journal of Geophysical Research: Space Physics, 2017, 122, 3526-3537.	2.4	12
85	Mars Initial Reference Ionosphere (MIRI) Model: Updates and Validations Using MAVEN, MEX, and MRO Data Sets. Journal of Geophysical Research: Space Physics, 2018, 123, 5674-5683.	2.4	12
86	First Groundâ€Based Conjugate Observations of Stable Auroral Red (SAR) Arcs. Journal of Geophysical Research: Space Physics, 2019, 124, 4658-4671.	2.4	12
87	Ionospheric Total Electron Content Behaviour during Geomagnetic Storms. Nature: Physical Science, 1971, 234, 23-24.	0.8	11
88	Opportunity to observe a largeâ€scale hole in the ionosphere. Eos, 1979, 60, 513-514.	0.1	11
89	Equatorial F region irregularity morphology during an equinoctial month at solar minimum. Space Science Reviews, 1999, 87, 357-386.	8.1	11
90	Flares at Earth and Mars: An Ionospheric Escape Mechanism?. Space Weather, 2018, 16, 1042-1056.	3.7	10

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91	Why the Viking descent probes found only one ionospheric layer at Mars. Geophysical Research Letters, 2015, 42, 7359-7365.	4.0	9
92	The Total Electron Content of the Martian Ionosphere From MRO/SHARAD Observations. Journal of Geophysical Research E: Planets, 2017, 122, 2182-2192.	3.6	9
93	Atomic oxygen ions as ionospheric biomarkers on exoplanets. Nature Astronomy, 2018, 2, 287-291.	10.1	9
94	Marsâ€™ plasma system. Scientific potential of coordinated multipoint missions: â€œThe next generationâ€• Experimental Astronomy, 2022, 54, 641-676.	3.7	9
95	The equivalent slab thickness of Mars' ionosphere: Implications for thermospheric temperature. Geophysical Research Letters, 2015, 42, 3560-3568.	4.0	8
96	Modeling Stable Auroral Red (SAR) Arcs at Geomagnetic Conjugate Points: Implications for Hemispheric Asymmetries in Heat Fluxes. Journal of Geophysical Research: Space Physics, 2019, 124, 6330-6342.	2.4	8
97	Ionospheric contribution to Saturn's inner plasmasphere. Journal of Geophysical Research, 2005, 110, .	3.3	7
98	Comparative aeronomy: Molecular ionospheres at Earth and Mars. Journal of Geophysical Research: Space Physics, 2016, 121, 10,269-10,288.	2.4	7
99	The First Use of Coordinated Ionospheric Radio and Optical Observations Over Italy: Convergence of Highâ€and Lowâ€Latitude Stormâ€Induced Effects. Journal of Geophysical Research: Space Physics, 2017, 122, 11,794.	2.4	7
100	Longâ€Term Observations and Physical Processes in the Moon's Extended Sodium Tail. Journal of Geophysical Research E: Planets, 2021, 126, e2020JE006671.	3.6	7
101	The ionosphere of Mars from solar minimum to solar maximum: Dayside electron densities from MAVEN and Mars Global Surveyor radio occultations. Icarus, 2023, 393, 114508.	2.5	7
102	The Use of Small Telescopes for Spectral Imaging of Low-light-level Extended Atmospheres in the Solar System. Earth, Moon and Planets, 2009, 105, 107-113.	0.6	6
103	Are ionospheric storms the same during different solar cycles?. Journal of Geophysical Research: Space Physics, 2013, 118, 6795-6805.	2.4	6
104	Space Weather Nowcasting for Areaâ€Denied Locations: Testing Allâ€Sky Imaging Applications at Geomagnetic Conjugate Points. Space Weather, 2018, 16, 47-56.	3.7	6
105	Simultaneous Observations of SAR Arc and Its Ionospheric Response at Subauroral Conjugate Points (LÂâ‰ƒÂ2.5) During the St. Patrick's Day Storm in 2015. Journal of Geophysical Research: Space Physics, 2020, 125, e2019JA027321.	2.4	6
106	Midlatitude Ionospheric Dynamics and Disturbances: Introduction. Geophysical Monograph Series, 0, , 1-7.	0.1	5
107	The Atmosphere Of The Moon. Earth, Moon and Planets, 1999, 85/86, 271-277.	0.6	4
108	Comparative ionospheres: Terrestrial and giant planets. Icarus, 2018, 303, 34-46.	2.5	4

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109	Mesospheric Gravity Wave Momentum Flux Associated With a Large Thunderstorm Complex. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2020JD033381.	3.3	4
110	The ionospheres of planets and exoplanets. Astronomy and Geophysics, 2019, 60, 1.25-1.30.	0.2	3
111	On the Altitude Patterns of Photoâ€Chemicalâ€Equilibrium in the Martian Ionosphere: A Special Role for Electron Temperature. Journal of Geophysical Research: Space Physics, 2021, 126, .	2.4	3
112	Jupiter's Enigmatic Ionosphere: Electron Density Profiles From the Pioneer, Voyager, and Galileo Radio Occultation Experiments. Journal of Geophysical Research E: Planets, 2022, 127, .	3.6	3
113	Reply to comment by Kil et al. on â€œThe night when the auroral and equatorial ionospheres convergedâ€• Journal of Geophysical Research: Space Physics, 2016, 121, 10,608-10,613.	2.4	2
114	The ionosphere of Venus: Strongest control by photo-chemical-equilibrium in the solar system, with implications for exospheric temperatures. Icarus, 2020, 349, 113870.	2.5	2
115	Lunam 2000 (Lunar Atmosphere Mission). Earth, Moon and Planets, 1999, 85/86, 487-495.	0.6	0
116	The application of terrestrial aeronomy groundbased instruments to planetary studies. Geophysical Monograph Series, 2002, , 329-337.	0.1	0
117	The Appearance of the Medicean Moons in 17thCentury Charts and Booksâ€”How Long Did It Take?. Proceedings of the International Astronomical Union, 2010, 6, 33-41.	0.0	0
118	Comet Giacobini-Zinner: Comparison of a Post-Encounter Image with In-Situ and Groundbased Observations. Special Publications, 2013, , 880-883.	0.0	0
119	The future of the ionosphere (according to usâ€¦). , 2020, , 313-315.		0
120	The Martian ionosphere at solar minimum: Empirical model validation using MAVEN ROSE data. Icarus, 2023, 393, 114609.	2.5	0