

# Ingo Mueller-Wodarg

## List of Publications by Year in descending order

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78  
papers

4,170  
citations

109264

35  
h-index

110317

64  
g-index

86  
all docs

86  
docs citations

86  
times ranked

2486  
citing authors

#	ARTICLE	IF	CITATIONS
1	Evidence for Gravity Waves in the Thermosphere of Saturn and Implications for Global Circulation. <i>Geophysical Research Letters</i> , 2022, 49, .	1.5	4
2	Phosphine gas in the cloud decks of Venus. <i>Nature Astronomy</i> , 2021, 5, 655-664.	4.2	174
3	Constraining the Temporal Variability of Neutral Winds in Saturn's Low-Latitude Ionosphere Using Magnetic Field Measurements. <i>Journal of Geophysical Research E: Planets</i> , 2021, 126, e2020JE006578.	1.5	4
4	Saturn's near-equatorial ionospheric conductivities from in situ measurements. <i>Scientific Reports</i> , 2020, 10, 7932.	1.6	10
5	A pole-to-pole pressure-temperature map of Saturn's thermosphere from Cassini Grand Finale data. <i>Nature Astronomy</i> , 2020, 4, 872-879.	4.2	14
6	Atmospheric Waves and Their Possible Effect on the Thermal Structure of Saturn's Thermosphere. <i>Geophysical Research Letters</i> , 2019, 46, 2372-2380.	1.5	20
7	Models of Saturn's Equatorial Ionosphere Based on In Situ Data From Cassini's Grand Finale. <i>Geophysical Research Letters</i> , 2018, 45, 9398-9407.	1.5	26
8	In situ observations of waves in Venus's polar lower thermosphere with Venus Express's aerobraking. <i>Nature Physics</i> , 2016, 12, 767-771.	6.5	16
9	The EChO science case. <i>Experimental Astronomy</i> , 2015, 40, 329-391.	1.6	31
10	Saturn ring rain: Model estimates of water influx into Saturn's atmosphere. <i>Icarus</i> , 2015, 245, 355-366.	1.1	35
11	Titan's upper atmosphere: thermal structure, dynamics, and energetics. , 2014, , 322-354.		2
12	Density waves in Titan's upper atmosphere. <i>Journal of Geophysical Research: Space Physics</i> , 2014, 119, 490-518.	0.8	19
13	Venus's upper atmospheric dynamical structure from ground-based observations shortly before and after Venus's inferior conjunction 2009. <i>Icarus</i> , 2013, 225, 828-839.	1.1	12
14	On the thermal electron balance in Titan's sunlit upper atmosphere. <i>Icarus</i> , 2013, 223, 234-251.	1.1	35
15	Compositional effects in Titan's thermospheric gravity waves. <i>Geophysical Research Letters</i> , 2013, 40, 43-47.	1.5	13
16	EChO. <i>Experimental Astronomy</i> , 2012, 34, 311-353.	1.6	98
17	The CH <sub>4</sub> structure in Titan's upper atmosphere revisited. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	61
18	Diurnal variation of electron density in Saturn's ionosphere: Model comparisons with Saturn Electrostatic Discharge (SED) observations. <i>Icarus</i> , 2012, 221, 508-516.	1.1	12

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19	Magnetosphere-atmosphere coupling at Saturn: 1 Response of thermosphere and ionosphere to steady state polar forcing. <i>Icarus</i> , 2012, 221, 481-494.	1.1	50
20	Uranus Pathfinder: exploring the origins and evolution of Ice Giant planets. <i>Experimental Astronomy</i> , 2012, 33, 753-791.	1.6	44
21	First ever in situ observations of Venus™ polar upper atmosphere density using the tracking data of the Venus Express Atmospheric Drag Experiment (VExADE). <i>Icarus</i> , 2012, 217, 831-838.	1.1	10
22	Surfaces, atmospheres and magnetospheres of the outer planets and their satellites and ring systems: Part VII. <i>Planetary and Space Science</i> , 2012, 61, 1-2.	0.9	1
23	Suprathermal electron spectra in the Venus ionosphere. <i>Journal of Geophysical Research</i> , 2011, 116, n/a-n/a.	3.3	21
24	Response of Saturn's auroral ionosphere to electron precipitation: Electron density, electron temperature, and electrical conductivity. <i>Journal of Geophysical Research</i> , 2011, 116, n/a-n/a.	3.3	50
25	The implications of the H <sub>2</sub> variability in Titan's exosphere. <i>Journal of Geophysical Research</i> , 2011, 116, n/a-n/a.	3.3	20
26	The science of EChO. <i>Proceedings of the International Astronomical Union</i> , 2010, 6, 359-370.	0.0	5
27	Dynamical and magnetic field time constants for Titan's ionosphere: Empirical estimates and comparisons with Venus. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	34
28	Latitudinal variations in Saturn's ionosphere: Cassini measurements and model comparisons. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	55
29	Response of Saturn's ionosphere to solar radiation: Testing parameterizations for thermal electron heating and secondary ionization processes. <i>Planetary and Space Science</i> , 2009, 57, 1699-1705.	0.9	25
30	Analysis of Titan's neutral upper atmosphere from Cassini Ion Neutral Mass Spectrometer measurements. <i>Icarus</i> , 2009, 200, 581-615.	1.1	276
31	Kronos: exploring the depths of Saturn with probes and remote sensing through an international mission. <i>Experimental Astronomy</i> , 2009, 23, 947-976.	1.6	10
32	TandEM: Titan and Enceladus mission. <i>Experimental Astronomy</i> , 2009, 23, 893-946.	1.6	77
33	Titan ionospheric conductivities from Cassini measurements. <i>Planetary and Space Science</i> , 2009, 57, 1828-1833.	0.9	30
34	On the ionospheric structure of Titan. <i>Planetary and Space Science</i> , 2009, 57, 1821-1827.	0.9	119
35	On the amount of heavy molecular ions in Titan's ionosphere. <i>Planetary and Space Science</i> , 2009, 57, 1857-1865.	0.9	96
36	Diurnal variations of Titan's ionosphere. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	69

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37	Solar primary and secondary ionization at Saturn. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	48
38	Preface. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2009, 367, 603-605.	1.6	1
39	Neutral Upper Atmosphere and Ionosphere Modeling. <i>Space Science Reviews</i> , 2008, 139, 107-141.	3.7	85
40	Neutral Atmospheres. <i>Space Science Reviews</i> , 2008, 139, 191-234.	3.7	27
41	Methane escape from Titan's atmosphere. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	114
42	Horizontal structures and dynamics of Titan's thermosphere. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	83
43	Plasma temperatures in Saturn's ionosphere. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	41
44	Neutral Upper Atmosphere and Ionosphere Modeling. <i>Space Sciences Series of ISSI</i> , 2008, , 107-141.	0.0	1
45	On magnetospheric electron impact ionisation and dynamics in Titan's ram-side and polar ionosphere " a Cassini case study. <i>Annales Geophysicae</i> , 2007, 25, 2359-2369.	0.6	78
46	Composition of Titan's ionosphere. <i>Geophysical Research Letters</i> , 2006, 33, .	1.5	191
47	Waves and horizontal structures in Titan's thermosphere. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	52
48	Why is there more ionosphere in January than in July? The annual asymmetry in the F2-layer. <i>Annales Geophysicae</i> , 2006, 24, 3293-3311.	0.6	131
49	Cassini radio occultations of Saturn's ionosphere: Model comparisons using a constant water flux. <i>Geophysical Research Letters</i> , 2006, 33, .	1.5	46
50	The vertical structure of Titan's upper atmosphere from Cassini Ion Neutral Mass Spectrometer measurements. <i>Icarus</i> , 2006, 182, 567-576.	1.1	112
51	The thermosphere of Venus and its exploration by a Venus Express Accelerometer Experiment. <i>Planetary and Space Science</i> , 2006, 54, 1415-1424.	0.9	10
52	A global circulation model of Saturn's thermosphere. <i>Icarus</i> , 2006, 180, 147-160.	1.1	73
53	Exploring Other Worlds to Learn More About Our Own. <i>Science</i> , 2006, 312, 1319-1320.	6.0	1
54	Oxygen Ions Observed Near Saturn's A Ring. <i>Science</i> , 2005, 307, 1260-1262.	6.0	57

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55	Cassini Measurements of Cold Plasma in the Ionosphere of Titan. <i>Science</i> , 2005, 308, 986-989.	6.0	178
56	Effects of ring shadowing on the detection of electrostatic discharges at Saturn. <i>Geophysical Research Letters</i> , 2005, 32, .	1.5	20
57	Titan interaction with Saturn's magnetosphere: Voyager 1 results revisited. <i>Journal of Geophysical Research</i> , 2005, 110, .	3.3	33
58	Titan's ionosphere: Model comparisons with Cassini Ta data. <i>Geophysical Research Letters</i> , 2005, 32, n/a-n/a.	1.5	81
59	Polar heating in Saturn's thermosphere. <i>Annales Geophysicae</i> , 2005, 23, 2465-2477.	0.6	23
60	Variations of thermospheric composition according to AE-C data and CTIP modelling. <i>Annales Geophysicae</i> , 2004, 22, 441-452.	0.6	13
61	Comparison of high-latitude thermospheric meridionalwinds II: combined FPI, radar and model Climatologies. <i>Annales Geophysicae</i> , 2004, 22, 863-876.	0.6	9
62	Comparison of high-latitude thermospheric meridionalwinds I: optical and radar experimental comparisons. <i>Annales Geophysicae</i> , 2004, 22, 849-862.	0.6	9
63	Modeling of global variations and ring shadowing in Saturn's ionosphere. <i>Icarus</i> , 2004, 172, 503-520.	1.1	82
64	Comparative aeronomy in the solar system. <i>Astronomy and Geophysics</i> , 2003, 44, 2.33-2.33.	0.1	1
65	On the global distribution of neutral gases in Titan's upper atmosphere and its effect on the thermal structure. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	28
66	Thermospheric general circulation models for the giant planets: The Jupiter case. <i>Geophysical Monograph Series</i> , 2002, , 289-298.	0.1	6
67	The application of general circulation models to the atmospheres of terrestrial-type moons of the giant planets. <i>Geophysical Monograph Series</i> , 2002, , 307-318.	0.1	0
68	The effect of dynamics on the composition of Titan's upper atmosphere. <i>Geophysical Research Letters</i> , 2002, 29, 54-1-54-4.	1.5	19
69	An investigation into the influence of tidal forcing on F-region equatorial vertical ion drift using a global ionosphere-thermosphere model with coupled electrodynamics. <i>Journal of Geophysical Research</i> , 2001, 106, 24733-24744.	3.3	165
70	Tidal oscillations in the thermosphere: a theoretical investigation of their sources. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 2001, 63, 899-914.	0.6	28
71	Annual and semiannual variations in the ionospheric F2-layer. I. Modelling. <i>Annales Geophysicae</i> , 2000, 18, 927-944.	0.6	130
72	Annual and semiannual variations in the ionospheric F2-layer: II. Physical discussion. <i>Annales Geophysicae</i> , 2000, 18, 945-956.	0.6	225

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73	The thermosphere of Titan simulated by a global three-dimensional time-dependent model. Journal of Geophysical Research, 2000, 105, 20833-20856.	3.3	61
74	Vertical circulation and thermospheric composition: a modelling study. Annales Geophysicae, 1999, 17, 794-805.	0.6	88
75	Consequences of geomagnetic history on the high-latitude thermosphere and ionosphere: Averages. Journal of Geophysical Research, 1999, 104, 28073-28088.	3.3	15
76	The influence of tides on composition of the thermosphere. Advances in Space Research, 1998, 21, 807-810.	1.2	11
77	Effects of a mid-latitude solar eclipse on the thermosphere and ionosphere - A modelling study. Geophysical Research Letters, 1998, 25, 3787-3790.	1.5	89
78	JIM: A time-dependent, three-dimensional model of Jupiter's thermosphere and ionosphere. Journal of Geophysical Research, 1998, 103, 20089-20112.	3.3	107