Martin Friedrich

List of Publications by Year in descending order

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67 papers

1,542 citations

257357

24

h-index

35 g-index

74 all docs

74 docs citations

74 times ranked 816 citing authors

#	Article	IF	CITATIONS
1	Turbulence generated small-scale structures as PMWE formation mechanism: Results from a rocket campaign. Journal of Atmospheric and Solar-Terrestrial Physics, 2021, 217, 105559.	0.6	5
2	Sounding rocket project "PMWE―for investigation of polar mesosphere winter echoes. Journal of Atmospheric and Solar-Terrestrial Physics, 2021, 218, 105596.	0.6	8
3	A new method of inferring the size, number density, and charge of mesospheric dust from its in situ collection by the DUSTY probe. Atmospheric Measurement Techniques, 2019, 12, 1673-1683.	1.2	4
4	Simultaneous in situ measurements of small-scale structures in neutral, plasma, and atomic oxygen densities during the WADIS sounding rocket project. Atmospheric Chemistry and Physics, 2019, 19, 11443-11460.	1.9	11
5	An Intercomparison of VLF and Sounding Rocket Techniques for Measuring the Daytime $\langle b \rangle \langle i \rangle D \langle j \rangle \langle b \rangle$ Region Ionosphere: Theoretical Implications. Journal of Geophysical Research: Space Physics, 2018, 123, 8688-8697.	0.8	11
6	FIRIâ€2018, an Updated Empirical Model of the Lower Ionosphere. Journal of Geophysical Research: Space Physics, 2018, 123, 6737-6751.	0.8	44
7	Long-term trends in the D - and E -region based on rocket-borne measurements. Journal of Atmospheric and Solar-Terrestrial Physics, 2017, 163, 78-84.	0.6	8
8	Global modeling of the low―and middleâ€latitude ionospheric <i>D</i> and lower <i>E</i> regions and implications for HF radio wave absorption. Space Weather, 2017, 15, 115-130.	1.3	18
9	Spatial and temporal variability in MLT turbulence inferred from in situ and ground-based observations during the WADIS-1 sounding rocket campaign. Annales Geophysicae, 2017, 35, 547-565.	0.6	18
10	Estimate of size distribution of charged MSPs measured in situ in winter during the WADIS-2 sounding rocket campaign. Annales Geophysicae, 2017, 35, 979-998.	0.6	6
11	Implications of odd oxygen observations by the TIMED/SABER instrument for lower D region ionospheric modeling. Journal of Atmospheric and Solar-Terrestrial Physics, 2015, 124, 63-70.	0.6	19
12	Charge balance for the mesosphere with meteoric dust particles. Journal of Atmospheric and Solar-Terrestrial Physics, 2015, 127, 137-149.	0.6	12
13	Detection of meteoric smoke particles in the mesosphere by a rocket-borne mass spectrometer. Journal of Atmospheric and Solar-Terrestrial Physics, 2014, 118, 161-179.	0.6	26
14	A combined rocket-borne and ground-based study of the sodium layer and charged dust in the upper mesosphere. Journal of Atmospheric and Solar-Terrestrial Physics, 2014, 118, 151-160.	0.6	28
15	Time constants in the ionosphere from neural network models. Advances in Space Research, 2013, 51, 691-695.	1.2	1
16	Multi-instrument comparisons of D-region plasma measurements. Annales Geophysicae, 2013, 31, 135-144.	0.6	17
17	Payload charging events in the mesosphere and their impact on Langmuir type electric probes. Annales Geophysicae, 2013, 31, 187-196.	0.6	20
18	lonospheric E–F valley observed by a sounding rocket at the low-latitude station Hainan. Annales Geophysicae, 2013, 31, 1459-1462.	0.6	5

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19	In situ observations of meteor smoke particles (MSP) during the Geminids 2010: constraints on MSP size, work function and composition. Annales Geophysicae, 2012, 30, 1661-1673.	0.6	39
20	Electron loss and meteoric dust in the mesosphere. Annales Geophysicae, 2012, 30, 1495-1501.	0.6	27
21	Bite-outs and other depletions of mesospheric electrons. Journal of Atmospheric and Solar-Terrestrial Physics, 2011, 73, 2201-2211.	0.6	25
22	The Hotel Payload 2 campaign: Overview of NO, O and electron density measurements in the upper mesosphere and lower thermosphere. Journal of Atmospheric and Solar-Terrestrial Physics, 2011, 73, 2228-2236.	0.6	11
23	Seasonal and solar activity variability of D-region electron density at 69°N. Journal of Atmospheric and Solar-Terrestrial Physics, 2011, 73, 925-935.	0.6	19
24	Microphysical Properties of Mesospheric Aerosols: An Overview of In Situ-Results from the ECOMA Project., 2011,, 67-74.		5
25	Variance of transionospheric VLF wave power absorption. Journal of Geophysical Research, 2010, 115, .	3.3	27
26	Rocketâ€borne in situ measurements of meteor smoke: Charging properties and implications for seasonal variation. Journal of Geophysical Research, 2010, 115, .	3.3	29
27	The ECOMA 2007 campaign: rocket observations and numerical modelling of aerosol particle charging and plasma depletion in a PMSE/NLC layer. Annales Geophysicae, 2009, 27, 781-796.	0.6	21
28	Mass analysis of charged aerosol particles in NLC and PMSE during the ECOMA/MASS campaign. Annales Geophysicae, 2009, 27, 1213-1232.	0.6	51
29	Signatures of mesospheric particles in ionospheric data. Annales Geophysicae, 2009, 27, 823-829.	0.6	19
30	First in situ measurement of the vertical distribution of ice volume in a mesospheric ice cloud during the ECOMA/MASS rocket-campaign. Annales Geophysicae, 2009, 27, 755-766.	0.6	25
31	PMSE and E-region plasma instability: In situ observations. Journal of Atmospheric and Solar-Terrestrial Physics, 2009, 71, 143-157.	0.6	7
32	News from the Lower Ionosphere: A Review of Recent Developments. Surveys in Geophysics, 2009, 30, 525-559.	2.1	68
33	Measurements of meteor smoke particles during the ECOMA-2006 campaign: 2. Results. Journal of Atmospheric and Solar-Terrestrial Physics, 2009, 71, 486-496.	0.6	29
34	A neural network-based ionospheric model for Arecibo. Advances in Space Research, 2008, 42, 776-781.	1.2	2
35	A steady-state model for the D- to F-region of the polar cap. Advances in Space Research, 2008, 42, 703-706.	1.2	1
36	A rocket-borne mass analyzer for charged aerosol particles in the mesosphere. Review of Scientific Instruments, 2008, 79, 104502.	0.6	11

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37	A neural network-based ionospheric model for the auroral zone. Journal of Atmospheric and Solar-Terrestrial Physics, 2007, 69, 1459-1470.	0.6	43
38	In situ observations of small scale neutral and plasma dynamics in the mesosphere/lower thermosphere at 79°N. Advances in Space Research, 2006, 38, 2388-2393.	1.2	9
39	Intense turbulence observed above a mesospheric temperature inversion at equatorial latitude. Geophysical Research Letters, 2006, 33, .	1.5	26
40	Rocket and incoherent scatter radar common-volume electron measurements of the equatorial lower ionosphere. Geophysical Research Letters, 2006, 33, .	1.5	19
41	ALTAIR incoherent scatter observations of the equatorial daytime ionosphere. Geophysical Research Letters, 2006, 33, .	1.5	9
42	The thermal and dynamical state of the atmosphere during polar mesosphere winter echoes. Atmospheric Chemistry and Physics, 2006, 6, 13-24.	1.9	48
43	Perturbations in EISCAT electron densities visualised by normalisation. Advances in Space Research, 2006, 38, 2413-2417.	1.2	3
44	First results of the polar cap ionosphere based on EISCAT Svalbard and Heiss Island rocket data. Advances in Space Research, 2006, 37, 1097-1101.	1.2	4
45	The MaCWAVE program to study gravity wave influences on the polar mesosphere. Annales Geophysicae, 2006, 24, 1159-1173.	0.6	29
46	Observations of positively charged nanoparticles in the nighttime polar mesosphere. Geophysical Research Letters, 2005, 32, .	1.5	94
47	The quiet auroral ionosphere and its neutral background. Advances in Space Research, 2004, 33, 943-948.	1.2	15
48	Coordinated investigation of plasma and neutral density fluctuations and particles during the MaCWAVE/MIDAS summer 2002 program. Geophysical Research Letters, 2004, 31, .	1.5	11
49	Influences of ice particles on the ion chemistry of the polar summer mesosphere. Journal of Geophysical Research, 2003, 108, .	3.3	28
50	The estimation of D-region electron densities from riometer data. Annales Geophysicae, 2003, 21, 603-613.	0.6	11
51	DROPPS: A study of the polar summer mesosphere with rocket, radar and lidar. Geophysical Research Letters, 2001, 28, 1407-1410.	1.5	39
52	Large electric potential perturbations in PMSE during DROPPS. Geophysical Research Letters, 2001, 28, 1435-1438.	1.5	20
53	Electrical structure of PMSE and NLC regions during the DROPPS Program. Geophysical Research Letters, 2001, 28, 1427-1430.	1.5	54
54	FIRI: A semiempirical model of the lower ionosphere. Journal of Geophysical Research, 2001, 106, 21409-21418.	3. 3	91

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55	Haloe nitric oxide measurements in view of ionospheric data. Journal of Atmospheric and Solar-Terrestrial Physics, 1998, 60, 1445-1457.	0.6	16
56	Equatorial dynamics observed by rocket, radar, and satellite during the CADRE/MALTED campaign: 1. Programmatics and small-scale fluctuations. Journal of Geophysical Research, 1997, 102, 26179-26190.	3.3	17
57	Positive ion depletion in a noctilucent cloud. Geophysical Research Letters, 1996, 23, 93-96.	1.5	35
58	A further generalisation of the Sen and Wyller magneto-ionic theory. Advances in Space Research, 1991, 11, 105-108.	1.2	11
59	Empirical transition heights of cluster ions. Advances in Space Research, 1988, 8, 235-238.	1.2	17
60	Measurement of nitric oxide and related parameters in the equatorial mesosphere and lower thermosphere. Planetary and Space Science, 1985, 33, 1169-1178.	0.9	14
61	High-latitude plasma densities and their relation to riometer absorption. Journal of Atmospheric and Solar-Terrestrial Physics, 1983, 45, 127-135.	0.9	41
62	Collision frequencies in the high-latitude D-region. Journal of Atmospheric and Solar-Terrestrial Physics, 1983, 45, 267-271.	0.9	34
63	Tests of an ion-chemical model of the D- and lower E-region. Journal of Atmospheric and Solar-Terrestrial Physics, 1983, 45, 369-385.	0.9	51
64	Evidence of coupling between auroral zone activity and mid-latitude absorption. Journal of Atmospheric and Solar-Terrestrial Physics, 1980, 42, 183-188.	0.9	7
65	Electron density measurements in the lower D-region. Journal of Atmospheric and Solar-Terrestrial Physics, 1979, 41, 1195-1200.	0.9	36
66	Ion production and effective loss rate in the mesosphere and lower thermosphere during the Western European Winter Anomaly Campaign 1975/76. Journal of Atmospheric and Solar-Terrestrial Physics, 1979, 41, 1097-1103.	0.9	14
67	Electron densities during winter anomalous absorption of different intensity—ll. Journal of Atmospheric and Solar-Terrestrial Physics, 1979, 41, 1121-1125.	0.9	15