Ralph Latteck

List of Publications by Year
in descending order

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94 papers	1,831 citations	257450 24 h-index	361022 35 g-index
114 all docs	114 docs citations	114 times ranked	615 citing authors

#	Article	IF	Citations
1	MAARSY: The new MST radar on AndÃ¸yaâ€”System description and first results. Radio Science, 2012, 47, .	1.6	74
2	First common volume observations of layered plasma structures and polar mesospheric summer echoes by rocket and radar. Geophysical Research Letters, 2001, 28, 1419-1422.	4.0	62
3	Polar mesosphere summer echoes (PMSE) studied at Bragg wavelengths of 2.8m, 67cm, and 16cm. Journal of Atmospheric and Solar-Terrestrial Physics, 2008, 70, 947-961.	1.6	58
4	The MaCWAVE/MIDAS rocket and ground-based measurements of polar summer dynamics: Overview and mean state structure. Geophysical Research Letters, 2004, 31, .	4.0	55
5	Temperature and wind tides around the summer mesopause at middle and arctic latitudes. Advances in Space Research, 2003, 31, 2055-2060.	2.6	54
6	Mass analysis of charged aerosol particles in NLC and PMSE during the ECOMA/MASS campaign. Annales Geophysicae, 2009, 27, 1213-1232.	1.6	51
7	The thermal and dynamical state of the atmosphere during polar mesosphere winter echoes. Atmospheric Chemistry and Physics, 2006, 6, 13-24.	4.9	48
8	Mean characteristics of mesosphere winter echoes at mid- and high-latitudes. Journal of Atmospheric and Solar-Terrestrial Physics, 2006, 68, 1087-1104.	1.6	47
9	Seasonal and long-term variations of PMSE from VHF radar observations at Andenes, Norway. Journal of Geophysical Research, 2003, 108, .	3.3	44
10	PMSE dependence on aerosol charge number density and aerosol size. Journal of Geophysical Research, 2003, 108, .	3.3	44
11	Dregion electron number density limits for the existence of polar mesosphere summer echoes. Journal of Geophysical Research, 2002, 107, ACH 2-1.	3.3	42
12	Measurement of positively and negatively charged particles inside PMSE during MIDAS SOLSTICE 2001. Journal of Geophysical Research, 2003, 108, .	3.3	40
13	Investigation of gravity waves using horizontally resolved radial velocity measurements. Atmospheric Measurement Techniques, 2013, 6, 2893-2905.	3.1	37
14	Similarities and differences in polar mesosphere summer echoes observed in the Arctic and Antarctica. Annales Geophysicae, 2008, 26, 2795-2806.	1.6	35
15	Properties of midlatitude mesosphere summer echoes after three seasons of VHF radar observations at 54Â°N. Journal of Geophysical Research, 2003, 108, .	3.3	33
16	Long-term changes of mesospheric summer echoes at polar and middle latitudes. Journal of Atmospheric and Solar-Terrestrial Physics, 2006, 68, 1940-1951.	1.6	33
17	A new narrow beam Doppler radar at 3MHz for studies of the high-latitude middle atmosphere. Advances in Space Research, 2008, 41, 1488-1494.	2.6	33
18	Long-term changes of (polar) mesosphere summer echoes. Journal of Atmospheric and Solar-Terrestrial Physics, 2009, 71, 1571-1576.	1.6	31

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19	Charge and size distribution of mesospheric aerosol particles measured inside NLC and PMSE during MIDAS MaCWAVE 2002. Journal of Atmospheric and Solar-Terrestrial Physics, 2006, 68, 114-123.	1.6	30
20	Gravity wave momentum fluxes from MF and meteor radar measurements in the polar MLT region. Journal of Geophysical Research: Space Physics, 2015, 120, 736-750.	2.4	30
21	Microphysical parameters of mesospheric ice clouds derived from calibrated observations of polar mesosphere summer echoes at Bragg wavelengths of 2.8 m and 30 cm. Journal of Geophysical Research, 2010, 115, .	3.3	27
22	Simultaneous observation of sodium atoms, NLC and PMSE in the summer mesopause region above ALOMAR, Norway (69Â°N, 12Â°E). Journal of Atmospheric and Solar-Terrestrial Physics, 2006, 68, 93-101.	1.6	26
23	Observation of polar mesosphere summer echoes with calibrated VHF radars at 69Â° in the Northern and Southern hemispheres. Geophysical Research Letters, 2007, 34, .	4.0	26
24	Influence of tides and gravity waves on layering processes in the polar summer mesopause region. Annales Geophysicae, 2008, 26, 4013-4022.	1.6	26
25	On the occurrence and formation of multiple layers of polar mesosphere summer echoes. Geophysical Research Letters, 2005, 32, .	4.0	25
26	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.	1.6	25
27	Tides near the Arctic summer mesopause during the MaCWAVE/MIDAS summer program. Geophysical Research Letters, 2005, 32, n/a-n/a.	4.0	24
28	Extended observations of polar mesosphere winter echoes over AndÃ¸ya (69Â°N) using MAARSY. Journal of Geophysical Research D: Atmospheres, 2015, 120, 8216-8226.	3.3	24
29	Radar measurements of turbulence, electron densities, and absolute reflectivities during polar mesosphere winter echoes (PMWE). Advances in Space Research, 2007, 40, 758-764.	2.6	23
30	Determination of meteor-head echo trajectories using the interferometric capabilities of MAARSY. Annales Geophysicae, 2013, 31, 1843-1851.	1.6	23
31	Mesosphere summer echoes as observed by VHF radar at KÃ¼hlungsborn (54Â°N). Geophysical Research Letters, 1999, 26, 1533-1536.	4.0	22
32	Calibrated measurements of PMSE strengths at three different locations observed with SKiYMET radars and narrow beam VHF radars. Journal of Atmospheric and Solar-Terrestrial Physics, 2009, 71, 1807-1813.	1.6	22
33	MAARSY â€“ the new MST radar on AndÃ¸ya/Norway. Advances in Radio Science, 0, 8, 219-224.	0.7	22
34	First three-dimensional observations of polar mesosphere winter echoes: Resolving space-time ambiguity. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	22
35	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.	1.6	21
36	Enhancing the spatiotemporal features of polar mesosphere summer echoes using coherent MIMO and radar imaging at MAARSY. Atmospheric Measurement Techniques, 2019, 12, 955-969.	3.1	21

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37	The Geminid meteor shower during the ECOMA sounding rocket campaign: specular and head echo radar observations. Annales Geophysicae, 2013, 31, 473-487.	1.6	20
38	Rocket probe observations of electric field irregularities in the polar summer mesosphere. Geophysical Research Letters, 2001, 28, 1431-1434.	4.0	19
39	Seasonal and solar activity variability of D-region electron density at 69Â°N. Journal of Atmospheric and Solar-Terrestrial Physics, 2011, 73, 925-935.	1.6	19
40	Longâ€term changes of polar mesosphere summer echoes at 69Â°N. Journal of Geophysical Research D: Atmospheres, 2013, 118, 10,441.	3.3	19
41	Radar Backscatter from Underdense Meteors and Diffusion Rates. Earth, Moon and Planets, 2008, 102, 403-409.	0.6	18
42	Small-scale structures in neutrals and charged aerosol particles as observed during the ECOMA/MASS rocket campaign. Annales Geophysicae, 2009, 27, 1449-1456.	1.6	18
43	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.	1.6	18
44	Observation of Kelvinâ€“Helmholtz instabilities and gravity waves in the summer mesopause above Andenes in Northern Norway. Atmospheric Chemistry and Physics, 2018, 18, 6721-6732.	4.9	18
45	Fourâ€Ðimensional Quantification of Kelvinâ€Helmholtz Instabilities in the Polar Summer Mesosphere Using Volumetric Radar Imaging. Geophysical Research Letters, 2020, 47, e2019GL086081.	4.0	18
46	Dependence of polar mesosphere summer echoes on solar and geomagnetic activity. Advances in Space Research, 2001, 28, 1071-1076.	2.6	17
47	Inter-hemispheric asymmetry in polar mesosphere summer echoes and temperature at 69Â° latitude. Journal of Atmospheric and Solar-Terrestrial Physics, 2009, 71, 464-469.	1.6	17
48	Coincident measurements of PMSE and NLC above ALOMAR (69Â° N, 16Â° E) by radar and lidar from 1999â€“2008. Atmospheric Chemistry and Physics, 2011, 11, 1355-1366.	4.9	17
49	MAARSY â€“ the new MST radar on AndÃ¸ya: first results of spaced antenna and Doppler measurements of atmospheric winds in the troposphere and mesosphere using a partial array. Advances in Radio Science, 0, 10, 291-298.	0.7	17
50	Measurement of turbulent kinetic energy dissipation rates in the mesosphere by a 3MHz Doppler radar. Advances in Space Research, 2005, 35, 1905-1910.	2.6	16
51	Rocket measurements of positive ions during polar mesosphere winter echo conditions. Atmospheric Chemistry and Physics, 2006, 6, 5515-5524.	4.9	16
52	MAARSY multiple receiver phase calibration using radio sources. Journal of Atmospheric and Solar-Terrestrial Physics, 2014, 118, 55-63.	1.6	16
53	Turbulent energy dissipation rates observed by Doppler MST Radar and by rocket-borne instruments during the MIDAS/MaCWAVE campaign 2002. Annales Geophysicae, 2005, 23, 1147-1156.	1.6	15
54	Rocket probing of PMSE and NLC â€” Results from the recent MIDAS/MaCWAVE campaign. Advances in Space Research, 2003, 31, 2061-2067.	2.6	14

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55	On the role of anisotropic MF/HF scattering in mesospheric wind estimation. Earth, Planets and Space, 2018, 70, .	2.5	14
56	Radar Observation of Extreme Vertical Drafts in the Polar Summer Mesosphere. Geophysical Research Letters, 2021, 48, e2021GL094918.	4.0	14
57	Long-term variations of polar mesospheric summer echoes observed at AndÃ¸ya (69Â°N). Journal of Atmospheric and Solar-Terrestrial Physics, 2017, 163, 31-37.	1.6	13
58	First Studies of Mesosphere and Lower Thermosphere Dynamics Using a Multistatic Specular Meteor Radar Network Over Southern Patagonia. Earth and Space Science, 2021, 8, e2020EA001356.	2.6	13
59	Using polar mesosphere summer echoes and stratospheric/mesospheric winds to explain summer mesopause jumps in Antarctica. Journal of Atmospheric and Solar-Terrestrial Physics, 2017, 162, 106-115.	1.6	12
60	Two decades of long-term observations of polar mesospheric echoes at 69Â°N. Journal of Atmospheric and Solar-Terrestrial Physics, 2021, 216, 105576.	1.6	12
61	Coordinated investigation of plasma and neutral density fluctuations and particles during the MaCWAVE/MIDAS summer 2002 program. Geophysical Research Letters, 2004, 31, .	4.0	11
62	New experiments to validate the radiation pattern of the Middle Atmosphere Alomar Radar System (MAARSY). Advances in Radio Science, 0, 11, 283-289.	0.7	11
63	Winter/summer transition in the Antarctic mesopause region. Journal of Geophysical Research D: Atmospheres, 2015, 120, 12394-12409.	3.3	11
64	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.	4.9	11
65	Variability of virtual layered phenomena in the mesosphere observed with medium frequency radars at 69Â°N. Journal of Atmospheric and Solar-Terrestrial Physics, 2017, 163, 38-45.	1.6	10
66	Observations of mesospheric ice particles from the ALWIN radar and SOFIE. Journal of Atmospheric and Solar-Terrestrial Physics, 2011, 73, 2176-2183.	1.6	8
67	High-resolution vertical velocities and their power spectrum observed with the MAARSY radar â€“ PartÂ1: frequency spectrum. Annales Geophysicae, 2018, 36, 577-586.	1.6	8
68	Sounding rocket project â€œPMWEâ€•for investigation of polar mesosphere winter echoes. Journal of Atmospheric and Solar-Terrestrial Physics, 2021, 218, 105596.	1.6	8
69	Multi-static spatial and angular studies of polar mesospheric summer echoes combining MAARSY and KAIRA. Atmospheric Chemistry and Physics, 2018, 18, 9547-9560.	4.9	7
70	Direct Comparison Between Magnetospheric Plasma Waves and Polar Mesosphere Winter Echoes in Both Hemispheres. Journal of Geophysical Research: Space Physics, 2019, 124, 9626-9639.	2.4	7
71	Horizontally resolved structures of radar backscatter from polar mesospheric layers. Advances in Radio Science, 0, 10, 285-290.	0.7	7
72	Simultaneous observations of Polar Mesosphere Summer Echoes at two different latitudes in Antarctica. Annales Geophysicae, 2008, 26, 3783-3792.	1.6	6

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73	Validation of the radiation pattern of the Middle Atmosphere Alomar Radar System (MAARSY). Advances in Radio Science, 0, 10, 245-253.	0.7	6
74	Geometric considerations of polar mesospheric summer echoes in tilted beams using coherent radar imaging. Advances in Radio Science, 0, 12, 197-203.	0.7	6
75	Localized mesosphere-stratosphere-troposphere radar echoes from theEregion at 69Â°N: Properties and physical mechanisms. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	5
76	Multi beam observations of cosmic radio noise using a VHF radar with beam forming by a Butler matrix. Advances in Radio Science, 0, 9, 349-357.	0.7	5
77	On the early onset of the NLC season 2013 as observed at ALOMAR. Journal of Atmospheric and Solar-Terrestrial Physics, 2015, 127, 73-77.	1.6	5
78	Turbulence generated small-scale structures as PMWE formation mechanism: Results from a rocket campaign. Journal of Atmospheric and Solar-Terrestrial Physics, 2021, 217, 105559.	1.6	5
79	D region observations by VHF and HF radars during a rocket campaign at AndÃ¸ya dedicated to investigations of PMWE. Advances in Radio Science, 0, 17, 225-237.	0.7	5
80	Multiple E-Region Radar Propagation Modes Measured by the VHF SIMONe Norway System During Active Ionospheric Conditions. Frontiers in Astronomy and Space Sciences, 2022, 9, .	2.8	5
81	First Simultaneous Rocket and Radar Detections of Rare Low Summer Mesospheric Clouds. Geophysical Research Letters, 2018, 45, 5727-5734.	4.0	4
82	High resolution radar observations of the 1999, 2000 and 2001 Leonid meteor storms over middle Europe and Northern Scandinavia. Advances in Space Research, 2004, 33, 1496-1500.	2.6	3
83	Multi-radar observations of polar mesosphere summer echoes during the PHOCUS campaign on 20â€“22 July 2011. Journal of Atmospheric and Solar-Terrestrial Physics, 2014, 118, 199-205.	1.6	3
84	Multi-beam radar observations of polar mesosphere summer echoes during the MIDAS/DROPPS/MiniDUSTY campaign at Andenes, Norway in July 1999. Advances in Space Research, 2001, 28, 1065-1070.	2.6	2
85	VHF antenna pattern characterization by the observation of meteor head echoes. Atmospheric Measurement Techniques, 2017, 10, 527-535.	3.1	2
86	On the unusually bright and frequent noctilucent clouds in summer 2019 above Northern Germany. Journal of Atmospheric and Solar-Terrestrial Physics, 2021, 217, 105577.	1.6	2
87	Occurrence frequencies of polar mesosphere summer echoes observed at 69Â° N during a full solar cycle. Advances in Radio Science, 0, 11, 327-332.	0.7	2
88	Validation of the radiation pattern of the VHF MST radar MAARSY by scattering off a sounding rocket's payload. Advances in Radio Science, 0, 13, 41-48.	0.7	2
89	Characteristics of Frequencyâ€Power Spectra in the Troposphere and Lower Stratosphere Over AndÃ¸ya (Norway) Revealed by MAARSY. Journal of Geophysical Research D: Atmospheres, 2022, 127, .	3.3	2
90	Investigation of horizontal structures at mesospheric altitudes using coherent radar imaging. Advances in Radio Science, 2013, 11, 319-325.	0.7	1

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91	Characterization of polar mesospheric VHF radar echoes during solar minimum winter 2019/2020. Part I: Ionisation. Journal of Atmospheric and Solar-Terrestrial Physics, 2021, 221, 105684.	1.6	1
92	Radar Backscatter from Underdense Meteors and Diffusion Rates. , 2007, , 403-409.		1
93	Observation and characterization of aerosols above ALOMAR (69 degrees N) by tropospheric lidar, sun-photometer, and VHF radar. , 2006, , .		0
94	On improving radar echo spectral width analysis for atmospheric turbulence estimates. , 2019, , .		0