Gunter Stober

List of Publications by Year
in descending order

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Version: 2024-02-01

97	1,877	218677	361022
papers	citations	26 h-index	35 g-index

148	148	148	1163
all docs	docs citations	times ranked	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	Upper mesospheric lunar tides over middle and high latitudes during sudden stratospheric warming events. Journal of Geophysical Research: Space Physics, 2015, 120, 3084-3096.	2.4	74
3	Neutral air density variations during strong planetary wave activity in the mesopause region derived from meteor radar observations. Journal of Atmospheric and Solar-Terrestrial Physics, 2012, 74, 55-63.	1.6	62
4	Comparison of mesospheric winds from a high-altitude meteorological analysis system and meteor radar observations during the boreal winters of 2009â€"2010 and 2012â€"2013. Journal of Atmospheric and Solar-Terrestrial Physics, 2017, 154, 132-166.	1.6	57
5	A multistatic and multifrequency novel approach for specular meteor radars to improve wind measurements in the MLT region. Radio Science, 2015, 50, 431-442.	1.6	46
6	Exceptionally strong summer-like zonal wind reversal in the upper mesosphere during winter 2015/16. Annales Geophysicae, 2017, 35, 711-720.	1.6	46
7	The extraordinarily strong and cold polar vortex in the early northern winter 2015/2016. Geophysical Research Letters, 2016, 43, 12,287.	4.0	44
8	Secondary Gravity Waves Generated by Breaking Mountain Waves Over Europe. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2019JD031662.	3.3	43
9	Meteor radar temperatures over Collm (51.3Â°N, 13Â°E). Advances in Space Research, 2008, 42, 1253-1258.	2.6	42
10	Midlatitude mesosphere/lower thermosphere meridional winds and temperatures measured with meteor radar. Advances in Space Research, 2007, 39, 1278-1283.	2.6	41
11	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.	1.6	39
12	Investigation of gravity waves using horizontally resolved radial velocity measurements. Atmospheric Measurement Techniques, 2013, 6, 2893-2905.	3.1	37
13	Neutral density variation from specular meteor echo observations spanning one solar cycle. Geophysical Research Letters, 2014, 41, 6919-6925.	4.0	37
14	Retrieving horizontally resolved wind fields using multi-static meteor radar observations. Atmospheric Measurement Techniques, 2018, 11, 4891-4907.	3.1	36
15	Quantifying gravity wave momentum fluxes with Mesosphere Temperature Mappers and correlative instrumentation. Journal of Geophysical Research D: Atmospheres, 2014, 119, 13,583.	3.3	35
16	Gravity wave momentum fluxes in the MLTâ€"Part I: Seasonal variation at Collm (51.3Â°N, 13.0Â°E). Journal of Atmospheric and Solar-Terrestrial Physics, 2011, 73, 904-910.	1.6	34
17	Polar mesospheric horizontal divergence and relative vorticity measurements using multiple specular meteor radars. Radio Science, 2017, 52, 811-828.	1.6	33
18	Nonspecular meteor trails from nonâ€fieldâ€aligned irregularities: Can they be explained by presence of charged meteor dust?. Geophysical Research Letters, 2014, 41, 3336-3343.	4.0	31

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19	Climatology of semidiurnal lunar and solar tides at middle and high latitudes: Interhemispheric comparison. Journal of Geophysical Research: Space Physics, 2017, 122, 7750-7760.	2.4	31
20	Application of Manleyâ€Rowe Relation in Analyzing Nonlinear Interactions Between Planetary Waves and the Solar Semidiurnal Tide During 2009 Sudden Stratospheric Warming Event. Journal of Geophysical Research: Space Physics, 2017, 122, 10,783.	2.4	30
21	Relations Between Semidiurnal Tidal Variants Through Diagnosing the Zonal Wavenumber Using a Phase Differencing Technique Based on Two Groundâ€Based Detectors. Journal of Geophysical Research D: Atmospheres, 2018, 123, 4015-4026.	3.3	29
22	A comparison of 11-year mesospheric and lower thermospheric winds determined by meteor and MF radar at 69 Â°â€N. Annales Geophysicae, 2017, 35, 893-906.	1.6	28
23	Coded continuous wave meteor radar. Atmospheric Measurement Techniques, 2016, 9, 829-839.	3.1	27
24	Climatologies and long-term changes in mesospheric wind and wave measurements based on radar observations at high and mid latitudes. Annales Geophysicae, 2019, 37, 851-875.	1.6	27
25	PMC Turbo: Studying Gravity Wave and Instability Dynamics in the Summer Mesosphere Using Polar Mesospheric Cloud Imaging and Profiling From a Stratospheric Balloon. Journal of Geophysical Research D: Atmospheres, 2019, 124, 6423-6443.	3.3	27
26	Results of the first continuous meteor head echo survey at polar latitudes. Icarus, 2017, 297, 1-13.	2.5	26
27	A meteoroid stream survey using meteor head echo observations from the Middle Atmosphere ALOMAR Radar System (MAARSY). Icarus, 2018, 309, 177-186.	2.5	26
28	High-speed video-based tracking of optically trapped colloids. Journal of Optics (United Kingdom), 2011, 13, 044011.	2.2	24
29	The impact of planetary waves on the latitudinal displacement of sudden stratospheric warmings. Annales Geophysicae, 2013, 31, 1397-1415.	1.6	24
30	Mid-latitude mesospheric clouds and their environment from SOFIE observations. Journal of Atmospheric and Solar-Terrestrial Physics, 2016, 149, 1-14.	1.6	24
31	Intercomparison of middle-atmospheric wind in observations and models. Atmospheric Measurement Techniques, 2018, 11, 1971-1987.	3.1	24
32	Interhemispheric differences of mesosphereâ€“lower thermosphere winds and tides investigated from three whole-atmosphere models and meteor radar observations. Atmospheric Chemistry and Physics, 2021, 21, 13855-13902.	4.9	24
33	Comparative study between ground-based observations and NAVGEM-HA analysis data in the mesosphere and lower thermosphere region. Atmospheric Chemistry and Physics, 2020, 20, 11979-12010.	4.9	24
34	Determination of meteor-head echo trajectories using the interferometric capabilities of MAARSY. Annales Geophysicae, 2013, 31, 1843-1851.	1.6	23
35	Derivation of turbulent energy dissipation rate with the Middle Atmosphere Alomar Radar System (MAARSY) and radiosondes at AndÃ¸ya, Norway. Annales Geophysicae, 2016, 34, 1209-1229.	1.6	23
36	Seasonal variability of atmospheric tides in the mesosphere and lower thermosphere: meteor radar data and simulations. Annales Geophysicae, 2018, 36, 825-830.	1.6	23

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37	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
38	Meteoroid mass determination from underdense trails. Journal of Atmospheric and Solar-Terrestrial Physics, 2011, 73, 895-900.	1.6	22
39	Quasiâ€biennial oscillation modulation of the middleâ€and highâ€latitude mesospheric semidiurnal tides during Augustâ€“September. Journal of Geophysical Research: Space Physics, 2016, 121, 4869-4879.	2.4	22
40	On the evaluation of the phase relation between temperature and wind tides based on ground-based measurements and reanalysis data in the middle atmosphere. Annales Geophysicae, 2019, 37, 581-602.	1.6	21
41	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
42	Characterization of a Double Mesospheric Bore Over Europe. Journal of Geophysical Research: Space Physics, 2017, 122, 9738-9750.	2.4	20
43	A piecewise linear model for detecting climatic trends and their structural changes with application to mesosphere/lower thermosphere winds over Collm, Germany. Journal of Geophysical Research, 2010, 115, .	3.3	19
44	Simultaneous optical and meteor head echo measurements using the Middle Atmosphere Alomar Radar System (MAARSY): Data collection and preliminary analysis. Planetary and Space Science, 2017, 141, 25-34.	1.7	19
45	Semidiurnal solar tide differences between fall and spring transition times in the Northern Hemisphere. Annales Geophysicae, 2018, 36, 999-1008.	1.6	19
46	High precision meteor observations with the Canadian automated meteor observatory: Data reduction pipeline and application to meteoroid mechanical strength measurements. Icarus, 2021, 354, 114097.	2.5	19
47	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
48	Middle Atmosphere Variability and Model Uncertainties as Investigated in the Framework of the ARISE Project. , 2019, , 845-887.		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	Development of the mesospheric Na layer at 69Â° N during the Geminids meteor shower 2010. Annales Geophysicae, 2013, 31, 61-73.	1.6	16
51	MAARSY multiple receiver phase calibration using radio sources. Journal of Atmospheric and Solar-Terrestrial Physics, 2014, 118, 55-63.	1.6	16
52	Trends of atmospheric water vapour in Switzerland from ground-based radiometry, FTIR and GNSS data. Atmospheric Chemistry and Physics, 2020, 20, 11223-11244.	4.9	16
53	Seasonal evolution of winds, atmospheric tides, and Reynolds stress components in the Southern Hemisphere mesosphereâ€“lower thermosphere in 2019. Annales Geophysicae, 2021, 39, 1-29.	1.6	15
54	Radar observations of the Maribo fireball over Juliusruh: revised trajectory and meteoroid mass estimation. Monthly Notices of the Royal Astronomical Society, 2015, 450, 1460-1464.	4.4	14

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55	Can VHF radars at polar latitudes measure mean vertical winds in the presence of PMSE?. Atmospheric Chemistry and Physics, 2019, 19, 4485-4497.	4.9	14
56	Global observations of 2Âday wave coupling to the diurnal tide in a highâ€altitude forecastâ€assimilation system. Journal of Geophysical Research D: Atmospheres, 2017, 122, 4135-4149.	3.3	13
57	Cosmic radio noise observations using a mid-latitude meteor radar. Journal of Atmospheric and Solar-Terrestrial Physics, 2011, 73, 1069-1076.	1.6	12
58	On the angular dependence and scattering model of polar mesospheric summer echoes at VHF. Journal of Geophysical Research D: Atmospheres, 2016, 121, 278-288.	3.3	12
59	Mesospheric Temperature During the Extreme Midlatitude Noctilucent Cloud Event on 18/19 July 2016. Journal of Geophysical Research D: Atmospheres, 2018, 123, 13,775.	3.3	12
60	Coupling From the Middle Atmosphere to the Exobase: Dynamical Disturbance Effects on Light Chemical Species. Journal of Geophysical Research: Space Physics, 2020, 125, e2020JA028331.	2.4	12
61	Vertical Structure of the Arctic Spring Transition in the Middle Atmosphere. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD034353.	3.3	12
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	Precision Measurements of Radar Transverse Scattering Speeds From Meteor Phase Characteristics. Radio Science, 2020, 55, e2019RS006987.	1.6	11
64	Analysis of small-scale structures in lidar observations of noctilucent clouds using a pattern recognition method. Journal of Atmospheric and Solar-Terrestrial Physics, 2017, 162, 48-56.	1.6	10
65	Atmospheric tomography using the Nordic Meteor Radar Cluster and Chilean Observation Network De Meteor Radars: network details and 3D-Var retrieval. Atmospheric Measurement Techniques, 2021, 14, 6509-6532.	3.1	10
66	Experimental Evidence of Arctic Summer Mesospheric Upwelling and Its Connection to Cold Summer Mesopause. Geophysical Research Letters, 2017, 44, 9151-9158.	4.0	9
67	Small-scale variability of stratospheric ozone during the sudden stratospheric warming 2018/2019 observed at Ny-Â…lesund, Svalbard. Atmospheric Chemistry and Physics, 2020, 20, 10791-10806.	4.9	9
68	Derivation of gravity wave intrinsic parameters and vertical wavelength using a single scanning OH(3-1) airglow spectrometer. Atmospheric Measurement Techniques, 2018, 11, 2937-2947.	3.1	8
69	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
70	Mesosphere and Lower Thermosphere Winds and Tidal Variations During the 2019 Antarctic Sudden Stratospheric Warming. Journal of Geophysical Research: Space Physics, 2022, 127, .	2.4	8
71	Horizontally resolved structures of radar backscatter from polar mesospheric layers. Advances in Radio Science, 0, 10, 285-290.	0.7	7
72	An Improved Method to Measure Head Echoes Using a Meteor Radar. Planetary Science Journal, 2021, 2, 197.	3.6	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	Mesospheric anomalous diffusion during noctilucent cloud scenarios. Atmospheric Chemistry and Physics, 2019, 19, 5259-5267.	4.9	5
76	Characteristics of very faint (+16) meteors detected with the Middle Atmosphere ALOMAR Radar System (MAARSY). Icarus, 2020, 340, 113444.	2.5	5
77	Dual frequency measurements of meteor head echoes simultaneously detected with the MAARSY and EISCAT radar systems. Icarus, 2021, 355, 114137.	2.5	5
78	A case study of a ducted gravity wave event over northern Germany using simultaneous airglow imaging and wind-field observations. Annales Geophysicae, 2022, 40, 179-190.	1.6	4
79	Simultaneous observations of NLCs and MSEs at midlatitudes: implications for formation and advection of ice particles. Atmospheric Chemistry and Physics, 2018, 18, 15569-15580.	4.9	3
80	First measurements of tides in the stratosphere and lower mesosphere by ground-based Doppler microwave wind radiometry. Atmospheric Chemistry and Physics, 2020, 20, 2367-2386.	4.9	3
81	Observation of the A Carinid Meteor Shower 2020 Unexpected Outburst. Planetary Science Journal, 2021, 2, 56.	3.6	3
82	Radar observations of Draconid outbursts. Monthly Notices of the Royal Astronomical Society, 2021, 507, 852-857.	4.4	3
83	Triple-frequency meteor radar full wave scattering. Measurements and comparison to theory. Astronomy and Astrophysics, 0, , .	5.1	3
84	Distortion of meteor count rates due to cosmic radio noise and atmospheric particularities. Advances in Radio Science, 0, 8, 237-241.	0.7	2
85	Statistical climatology of mid-latitude mesospheric summer echoes characterised by OSWIN (Ostsee-Wind) radar observations. Atmospheric Chemistry and Physics, 2019, 19, 5251-5258.	4.9	2
86	Connection between the length of day and wind measurements in the mesosphere and lower thermosphere at mid- and high latitudes. Annales Geophysicae, 2019, 37, 1-14.	1.6	2
87	Meteoroid Mass Estimation Based on Singleâ€Frequency Radar Cross Section Measurements. Journal of Geophysical Research: Space Physics, 2021, 126, e2021JA029525.	2.4	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	Meteor radar observations of mesopause region long-period temperature oscillations. Advances in Radio Science, 0, 14, 169-174.	0.7	2
90	Development of a Polarimetric 50 GHz Spectrometer for Temperature Sounding in the Middle Atmosphere. , 2021, , .		2

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91	Statistical Parameter Estimation for Observation Error Modelling: Application to Meteor Radars. , 2022, , 185-213.		2
92	Continuous temperature soundings at the stratosphere and lower mesosphere with a ground-based radiometer considering the Zeeman effect. Atmospheric Measurement Techniques, 2022, 15, 2231-2249.	3.1	2
93	Development of a Polarimetric 50-GHz Spectrometer for Temperature Sounding in the Middle Atmosphere. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2022, 15, 5644-5651.	4.9	2
94	Investigation of horizontal structures at mesospheric altitudes using coherent radar imaging. Advances in Radio Science, 2013, 11, 319-325.	0.7	1
95	Corrigendum to "Development of the mesospheric Na layer at 69Â° N during the Geminids meteor shower 2010", published in Ann. Geophys., 31, 61â€“73, 2013. Annales Geophysicae, 2015, 33, 197-197.	1.6	1
96	Influence of geomagnetic disturbances on mean winds and tides in the mesosphere/lower thermosphere at midlatitudes. Advances in Radio Science, 0, 19, 185-193.	0.7	1
97	Wind and spectral width estimations in PMSE with coherent radar imaging. , 2014, , .		0