

Sheila Kirkwood

List of Publications by Year in descending order

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105
papers

1,935
citations

257101

24
h-index

344852

36
g-index

105
all docs

105
docs citations

105
times ranked

1129
citing authors

#	ARTICLE	IF	CITATIONS
1	First artificially induced modulation of PMSE using the EISCAT Heating Facility. Geophysical Research Letters, 2000, 27, 3801-3804.	1.5	85
2	On the role of auroral electric fields in the formation of low altitude sporadic-E and sudden sodium layers. Journal of Atmospheric and Solar-Terrestrial Physics, 1991, 53, 389-407.	0.9	83
3	Ionospheric conductivities, electric fields and currents associated with auroral substorms measured by the EISCAT radar. Planetary and Space Science, 1988, 36, 1359-1380.	0.9	78
4	High-latitude Sporadic-E and other Thin Layers – the Role of Magnetospheric Electric Fields. Space Science Reviews, 2000, 91, 579-613.	3.7	70
5	Influence of planetary waves on noctilucent cloud occurrence over NW Europe. Journal of Geophysical Research, 2003, 108, .	3.3	61
6	Seasonal and tidal variations of neutral temperatures and densities in the high latitude lower thermosphere measured by EISCAT. Journal of Atmospheric and Solar-Terrestrial Physics, 1986, 48, 817-826.	0.9	53
7	Gravity wave generation of simultaneous auroral sporadic-E layers and sudden neutral sodium layers. Journal of Atmospheric and Solar-Terrestrial Physics, 1989, 51, 259-269.	0.9	47
8	The Esrange MST radar: A brief introduction and procedure for range validation using balloons. Radio Science, 1999, 34, 427-436.	0.8	46
9	Noctilucent clouds, PMSE and 5-day planetary waves: A case study. Geophysical Research Letters, 2002, 29, 50-1-50-4.	1.5	44
10	Noctilucent clouds observed from the UK and Denmark – trends and variations over 43 years. Annales Geophysicae, 2008, 26, 1243-1254.	0.6	44
11	The response time of PMSE to ionospheric heating. Journal of Geophysical Research, 2003, 108, .	3.3	39
12	Infrasound - the cause of strong Polar Mesosphere Winter Echoes?. Annales Geophysicae, 2006, 24, 475-491.	0.6	39
13	Polar mesosphere summer echoes at Wasa, Antarctica (73°S): First observations and comparison with 68°N. Geophysical Research Letters, 2007, 34, .	1.5	39
14	Quantitative Studies of Energetic Particle Precipitation Using Incoherent Scatter Radar.. Journal of Geomagnetism and Geoelectricity, 1995, 47, 783-799.	0.8	39
15	Turbulence associated with mountain waves over Northern Scandinavia – a case study using the ESRAD VHF radar and the WRF mesoscale model. Atmospheric Chemistry and Physics, 2010, 10, 3583-3599.	1.9	34
16	Collision frequency measurements in the high-latitude region with EISCAT. Radio Science, 1985, 20, 785-793.	0.8	33
17	A comparison of PMSE and other ground-based observations during the NLC-91 campaign. Journal of Atmospheric and Solar-Terrestrial Physics, 1995, 57, 35-44.	0.9	32
18	A case study of gravity waves in noctilucent clouds. Annales Geophysicae, 2004, 22, 1875-1884.	0.6	32

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19	Electron temperature dependence of PMSE power: experimental and modelling results. <i>Advances in Space Research</i> , 2001, 28, 1077-1082.	1.2	28
20	The dynamical background of polar mesosphere winter echoes from simultaneous EISCAT and ESRAD observations. <i>Annales Geophysicae</i> , 2005, 23, 1239-1247.	0.6	28
21	Polar mesosphere winter echoes – A review of recent results. <i>Advances in Space Research</i> , 2007, 40, 751-757.	1.2	27
22	First observation of the overshoot effect for polar mesosphere winter echoes during radiowave electron temperature modulation. <i>Geophysical Research Letters</i> , 2008, 35, .	1.5	26
23	Calibration of electron densities for the EISCAT UHF radar. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 1986, 48, 773-775.	0.9	25
24	Climatology of UTLS ozone and the ratio of ozone and potential vorticity over northern Europe. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	25
25	The 1997 PMSE season - Its relation to wind, temperature and water vapour. <i>Geophysical Research Letters</i> , 1998, 25, 1867-1870.	1.5	24
26	Aspect sensitivity measurements of polar mesosphere summer echoes using coherent radar imaging. <i>Annales Geophysicae</i> , 2002, 20, 213-223.	0.6	24
27	Comparison of long-term Moscow and Danish NLC observations: statistical results. <i>Annales Geophysicae</i> , 2006, 24, 2841-2849.	0.6	24
28	Electron density profiles in the quiet lower ionosphere based on the results of modeling and experimental data. <i>Annales Geophysicae</i> , 2012, 30, 1345-1360.	0.6	23
29	The ionospheric signature of the cusp: A case study using Freja and the Sondrestrom radar. <i>Geophysical Research Letters</i> , 1994, 21, 1923-1926.	1.5	21
30	Climatology of tropopause folds over a European Arctic station (Esrangle). <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	21
31	Polar mesosphere summer echoes with ESRAD, Kiruna, Sweden: Variations and trends over 1997–2008. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 2010, 72, 435-447.	0.6	20
32	Fresnel scatter revisited – comparison of 50 MHz radar and radiosondes in the Arctic, the Tropics and Antarctica. <i>Annales Geophysicae</i> , 2010, 28, 1993-2005.	0.6	20
33	Recent studies of time variations of natural electromagnetic fields in Scotland. <i>Physics of the Earth and Planetary Interiors</i> , 1981, 24, 66-87.	0.7	19
34	Planetary-wave modulation of PMSE. <i>Geophysical Research Letters</i> , 1998, 25, 4509-4512.	1.5	19
35	Characteristics of tropopause folds over Arctic latitudes. <i>Journal of Geophysical Research</i> , 2005, 110, .	3.3	19
36	The role of atomic oxygen concentration in the ionization balance of the lower ionosphere during solar proton events. <i>Annales Geophysicae</i> , 2008, 26, 131-143.	0.6	19

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37	Finland HF and ESRANGE MST radar observations of polar mesosphere summer echoes. <i>Annales Geophysicae</i> , 2003, 21, 1047-1055.	0.6	19
38	D-region electron density and effective recombination coefficients during twilight " experimental data and modelling during solar proton events. <i>Annales Geophysicae</i> , 2009, 27, 3713-3724.	0.6	19
39	Polar mesosphere summer echoes and noctilucent clouds: Simultaneous and common-volume observations by radar, lidar and CCD camera. <i>Geophysical Research Letters</i> , 2000, 27, 661-664.	1.5	18
40	Polar mesosphere winter echoes during MaCWAVE. <i>Annales Geophysicae</i> , 2006, 24, 1245-1255.	0.6	18
41	Experimental evidence for unstable waves in the lower E/Upper D-region excited near the bisector between the electric field and the drift velocity. <i>Geophysical Research Letters</i> , 1996, 23, 2137-2140.	1.5	17
42	High-energy electron fluxes derived from EISCAT electron density profiles. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 1996, 58, 479-487.	0.9	17
43	A new height for the summer mesopause: Antarctica, December 2007. <i>Geophysical Research Letters</i> , 2008, 35, .	1.5	16
44	Aspect sensitivity of polar mesosphere summer echoes based on ESRAD MST radar measurements in Kiruna, Sweden in 1997-2010. <i>Annales Geophysicae</i> , 2012, 30, 457-465.	0.6	16
45	The role of magnetospheric electric fields in producing auroral zone thin layers. <i>Advances in Space Research</i> , 1992, 12, 225-228.	1.2	15
46	Five-day planetary waves in the middle atmosphere from Odin satellite data and ground-based instruments in Northern Hemisphere summer 2003, 2004, 2005 and 2007. <i>Annales Geophysicae</i> , 2008, 26, 3557-3570.	0.6	15
47	Thin ion layers in the high-latitude lower ionosphere. <i>Advances in Space Research</i> , 1997, 19, 149-158.	1.2	14
48	The D-region background at high latitudes. <i>Advances in Space Research</i> , 2000, 25, 15-23.	1.2	14
49	Polar mesosphere summer echoes during the July 2000 solar proton event. <i>Annales Geophysicae</i> , 2004, 22, 759-771.	0.6	14
50	Dynamical influence of gravity waves generated by the Vestfjella Mountains in Antarctica: radar observations, fine-scale modelling and kinetic energy budget analysis. <i>Tellus, Series A: Dynamic Meteorology and Oceanography</i> , 2022, 64, 17261.	0.8	14
51	Tropopause fold occurrence rates over the Antarctic station Troll (72° S, 2.5° E). <i>Annales Geophysicae</i> , 2013, 31, 591-598.	0.6	14
52	Validation of Aeolus winds using ground-based radars in Antarctica and in northern Sweden. <i>Atmospheric Measurement Techniques</i> , 2021, 14, 5415-5428.	1.2	14
53	The influence of ozone concentration on the lower ionosphere " modelling and measurements during the 29-30 October 2003 solar proton event. <i>Annales Geophysicae</i> , 2009, 27, 577-589.	0.6	13
54	Plasma instabilities in the lower E-region observed during the DYANA campaign. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 1994, 56, 1853-1870.	0.9	12

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55	Ozone loss derived from balloon-borne tracer measurements in the 1999/2000 Arctic winter. <i>Atmospheric Chemistry and Physics</i> , 2005, 5, 1423-1436.	1.9	12
56	Polar mesosphere summer echoes: a comparison of simultaneous observations at three wavelengths. <i>Annales Geophysicae</i> , 2007, 25, 2487-2496.	0.6	12
57	Middle atmospheric water vapour and dynamics in the vicinity of the polar vortex during the Hygrosonde-2 campaign. <i>Atmospheric Chemistry and Physics</i> , 2009, 9, 4407-4417.	1.9	12
58	Response of polar mesosphere summer echoes to geomagnetic disturbances in the Southern and Northern Hemispheres: the importance of nitric oxide. <i>Annales Geophysicae</i> , 2013, 31, 333-347.	0.6	12
59	Case study of stratospheric gravity waves of convective origin over Arctic Scandinavia – VHF radar observations and numerical modelling. <i>Annales Geophysicae</i> , 2013, 31, 239-250.	0.6	12
60	Long-periodic strong radar echoes in the summer polar region correlated with oscillations of high-speed solar wind streams. <i>Geophysical Research Letters</i> , 2013, 40, 4160-4164.	1.5	12
61	Polar summer mesospheric extreme horizontal drift speeds during interplanetary corotating interaction regions (CIRs) and high-speed solar wind streams: Coupling between the solar wind and the mesosphere. <i>Journal of Geophysical Research: Space Physics</i> , 2014, 119, 3883-3894.	0.8	12
62	Anomalous ion layers in the high-latitude winter E region. <i>Geophysical Research Letters</i> , 1991, 18, 1189-1192.	1.5	11
63	Electron temperatures determined by tristatic plasma line observations with the EISCAT UHF incoherent scatter radar. <i>Geophysical Research Letters</i> , 1992, 19, 661-664.	1.5	11
64	Investigations of the possible relationship between PMSE and tides using a VHF MST radar. <i>Geophysical Research Letters</i> , 1998, 25, 3297-3300.	1.5	11
65	Mountain wave motions determined by the Esrange MST radar. <i>Annales Geophysicae</i> , 1999, 17, 957-970.	0.6	11
66	Polar mesosphere summer echo strength in relation to solar variability and geomagnetic activity during 1997–2009. <i>Annales Geophysicae</i> , 2011, 29, 563-572.	0.6	11
67	Observation of a tropopause fold by MARA VHF wind-profiler radar and ozonesonde at Wasa, Antarctica: comparison with ECMWF analysis and a WRF model simulation. <i>Annales Geophysicae</i> , 2012, 30, 1411-1421.	0.6	11
68	Are variations in PMSE intensity affected by energetic particle precipitation?. <i>Annales Geophysicae</i> , 2002, 20, 539-545.	0.6	11
69	D-region signatures of substorm growth phase and onset observed by EISCAT. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 1986, 48, 807-816.	0.9	10
70	The high-latitude lower ionosphere observed by EISCAT. <i>Advances in Space Research</i> , 1987, 7, 83-86.	1.2	9
71	Ozone loss from quasi-conservative coordinate mapping during the 1999–2000 SOLVE/THESEO 2000 campaigns. <i>Journal of Geophysical Research</i> , 2002, 107, SOL 16-1.	3.3	9
72	The disturbed auroral ionosphere based on EISCAT and rocket data. <i>Advances in Space Research</i> , 2004, 33, 949-955.	1.2	9

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73	Wave influence on polar mesosphere summer echoes above Wasa: experimental and model studies. <i>Annales Geophysicae</i> , 2012, 30, 1143-1157.	0.6	9
74	Short vertical-wavelength inertia-gravity waves generated by a jetâ€‘front system at Arctic latitudes â€‘ VHF radar, radiosondes and numerical modelling. <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 6785-6799.	1.9	9
75	A study of auroral electron acceleration using the EISCAT radar and the viking satellite. <i>Advances in Space Research</i> , 1989, 9, 49-52.	1.2	8
76	Quantitative relation between PMSE and ice mass density. <i>Annales Geophysicae</i> , 2010, 28, 1333-1343.	0.6	8
77	High-speed solar wind streams and polar mesosphere winter echoes at Troll, Antarctica. <i>Annales Geophysicae</i> , 2015, 33, 609-622.	0.6	8
78	Enhanced incoherent scatter plasma lines. <i>Annales Geophysicae</i> , 1996, 14, 1462.	0.6	8
79	Frequency domain interferometry mode observations of PMSE using the EISCAT VHF radar. <i>Annales Geophysicae</i> , 2000, 18, 1599-1612.	0.6	7
80	Planetary waves in ozone and temperature in the Northern Hemisphere winters of 2002/2003 and early 2005. <i>Annales Geophysicae</i> , 2009, 27, 1189-1206.	0.6	7
81	Intercomparisons of simultaneous remote and in situ wind measurements. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 1994, 56, 1985-2001.	0.9	6
82	The atmospheric background situation in northern Scandinavia during January/February 2003 in the context of the MaCWAVE campaign. <i>Annales Geophysicae</i> , 2006, 24, 1189-1197.	0.6	6
83	Simultaneous observations of Polar Mesosphere Summer Echoes at two different latitudes in Antarctica. <i>Annales Geophysicae</i> , 2008, 26, 3783-3792.	0.6	6
84	Validation of wind measurements of two mesosphereâ€‘stratosphereâ€‘troposphere radars in northern Sweden and in Antarctica. <i>Atmospheric Measurement Techniques</i> , 2021, 14, 2813-2825.	1.2	6
85	Localised features in the auroral D-region observed by EISCAT. <i>Advances in Space Research</i> , 1987, 7, 349-352.	1.2	5
86	EISCAT and ALOMAR review of potential for co-operative science. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 1996, 58, 337-348.	0.9	5
87	Energetic electron precipitation during auroral events observed by incoherent scatter radar. <i>Advances in Space Research</i> , 1996, 17, 149-155.	1.2	5
88	Influence of Solar and Lunar Tides on the Mesopause Region as Observed in Polar Mesosphere Summer Echoes Characteristics. <i>Journal of Geophysical Research D: Atmospheres</i> , 2017, 122, 10,369.	1.2	5
89	EISCAT Observation of Waveâ€‘Like Fluctuations in Vertical Velocity of Polar Mesospheric Summer Echoes Associated With a Geomagnetic Disturbance. <i>Journal of Geophysical Research: Space Physics</i> , 2018, 123, 5182-5194.	0.8	5
90	Morphology of the D- and E-regions at high latitudes in the northern hemisphere during the DYANA campaign in 1990. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 1994, 56, 1933-1945.	0.9	4

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91	Characteristics of PMSE associated with the geomagnetic disturbance driven by corotating interaction region and high-speed solar wind streams in the declining solar cycle 23. <i>Journal of Geophysical Research: Space Physics</i> , 2015, 120, 3198-3206.	0.8	4
92	Bistatic measurements of incoherent scatter plasma lines. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 1996, 58, 175-187.	0.9	3
93	Reply to comment by M. Rapp and F.J. Lübken on "The response time of PMSE to ionospheric heating". <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	3
94	Cosmic radio-noise absorption bursts caused by solar wind shocks. <i>Annales Geophysicae</i> , 2004, 22, 2973-2987.	0.6	3
95	Climatology of ozone in the troposphere and lower stratosphere over the European Arctic. <i>Advances in Space Research</i> , 2004, 34, 754-754.	1.2	3
96	Five-day planetary waves as seen by the Odin satellite and the ground-based Kiruna millimeter wave radiometer in January-March 2005. <i>Canadian Journal of Physics</i> , 2008, 86, 459-466.	0.4	3
97	Spectral characteristics and scatter cross-section of low latitude mesospheric echoes measured by the Indian MST radar at Gadanki. <i>Annales Geophysicae</i> , 2012, 30, 983-990.	0.6	3
98	Title is missing!. <i>Cosmic Research</i> , 2001, 39, 311-315.	0.2	2
99	Turbulence for different background conditions using fuzzy logic and clustering. <i>Annales Geophysicae</i> , 2010, 28, 1475-1481.	0.6	2
100	EISCAT and ESRAD radars observations of polar mesosphere winter echoes during solar proton events on 11-12 November 2004. <i>Annales Geophysicae</i> , 2013, 31, 1177-1190.	0.6	2
101	Reply to comments by B. R. Clemesha and D. M. Simonich on paper entitled "gravity wave generation of simultaneous auroral sporadic-E layers and sudden neutral sodium layers" by S. Kirkwood and P. N. Collis. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 1990, 52, 87-88.	0.9	1
102	On merging empirical models for the lower ionosphere of auroral and non-auroral latitudes. <i>Advances in Space Research</i> , 2002, 29, 929-935.	1.2	1
103	Investigation of weather anomalies in the low-latitude islands of the Indian Ocean in 1991. <i>Annales Geophysicae</i> , 2015, 33, 789-804.	0.6	1
104	A novel, high resolution temperature sensor for balloon applications. <i>Advances in Space Research</i> , 2002, 30, 1365-1369.	1.2	0
105	Case study of the development of polar stratospheric clouds using bistatic imaging. <i>Annales Geophysicae</i> , 2003, 21, 1869-1878.	0.6	0