

# Kjellmar Oksavik

## List of Publications by Year in descending order

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112  
papers

3,330  
citations

117453

34  
h-index

174990

52  
g-index

122  
all docs

122  
docs citations

122  
times ranked

1815  
citing authors

#	ARTICLE	IF	CITATIONS
1	The Dependence of Cold and Hot Patches on Local Plasma Transport and Particle Precipitation in Northern Hemisphere Winter. <i>Geophysical Research Letters</i> , 2022, 49, .	1.5	3
2	Interferometric Study of Ionospheric Plasma Irregularities in Regions of Phase Scintillations and HF Backscatter. <i>Geophysical Research Letters</i> , 2022, 49, .	1.5	8
3	Dayside Transient Phenomena and Their Impact on the Magnetosphere and Ionosphere. <i>Space Science Reviews</i> , 2022, 218, .	3.7	35
4	The Cusp as a VLF Saucer Source: First Rocket Observations of Longâ€Duration VLF Saucers on the Dayside. <i>Geophysical Research Letters</i> , 2021, 48, e2020GL090747.	1.5	3
5	Electron Density Depletion Region Observed in the Polar Cap Ionosphere. <i>Journal of Geophysical Research: Space Physics</i> , 2021, 126, e2020JA028432.	0.8	6
6	A space hurricane over the Earthâ€™s polar ionosphere. <i>Nature Communications</i> , 2021, 12, 1207.	5.8	21
7	GPS Scintillations and TEC Variations in Association With a Polar Cap Arc. <i>Journal of Geophysical Research: Space Physics</i> , 2021, 126, e2020JA028968.	0.8	5
8	Nordlyset: Den himmelske danserinnen!. <i>Naturen</i> , 2021, 145, 128-137.	0.0	0
9	Solar and Geomagnetic Activity Impact on Occurrence and Spatial Size of Cold and Hot Polar Cap Patches. <i>Geophysical Research Letters</i> , 2021, 48, e2021GL094526.	1.5	8
10	Overview of the Rocket Experiment for Neutral Upwelling Sounding Rocket 2 (RENU2). <i>Geophysical Research Letters</i> , 2020, 47, e2018GL081885.	1.5	7
11	A Statistical Study of Polar Cap Flow Channels and Their IMF By Dependence. <i>Journal of Geophysical Research: Space Physics</i> , 2020, 125, e2020JA028359.	0.8	5
12	Dayside Fieldâ€Aligned Current Impacts on Ionospheric Irregularities. <i>Geophysical Research Letters</i> , 2020, 47, e2019GL086722.	1.5	8
13	Seasonal and Hemispheric Asymmetries of $F$ Region Polar Cap Plasma Density: Swarm and CHAMP Observations. <i>Journal of Geophysical Research: Space Physics</i> , 2020, 125, e2020JA028084.	0.8	9
14	Statistical Study of the Relationship Between Ion Upflow and Fieldâ€Aligned Current in the Topside Ionosphere for Both Hemispheres During Geomagnetic Disturbed and Quiet Time. <i>Journal of Geophysical Research: Space Physics</i> , 2020, 125, e2019JA027538.	0.8	6
15	On the Production of Ionospheric Irregularities Via Kelvinâ€Helmholtz Instability Associated with Cusp Flow Channels. <i>Journal of Geophysical Research: Space Physics</i> , 2020, 125, e2019JA027734.	0.8	16
16	Multiple transpolar auroral arcs reveal insight about coupling processes in the Earthâ€™s magnetotail. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 16193-16198.	3.3	24
17	Plasma density gradients at the edge of polar ionospheric holes: the absence of phase scintillation. <i>Annales Geophysicae</i> , 2020, 38, 575-590.	0.6	3
18	Simultaneous Rocket and Scintillation Observations of Plasma Irregularities Associated With a Reversed Flow Event in the Cusp Ionosphere. <i>Journal of Geophysical Research: Space Physics</i> , 2019, 124, 7098-7111.	0.8	11

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19	A Study of Automatically Detected Flow Channels in the Polar Cap Ionosphere. <i>Journal of Geophysical Research: Space Physics</i> , 2019, 124, 9430-9447.	0.8	7
20	Separation and Quantification of Ionospheric Convection Sources: 1. A New Technique. <i>Journal of Geophysical Research: Space Physics</i> , 2019, 124, 6343-6357.	0.8	9
21	Separation and Quantification of Ionospheric Convection Sources: 2. The Dipole Tilt Angle Influence on Reverse Convection Cells During Northward IMF. <i>Journal of Geophysical Research: Space Physics</i> , 2019, 124, 6182-6194.	0.8	13
22	Observational Evidence for Throat Aurora Being Associated With Magnetopause Reconnection. <i>Geophysical Research Letters</i> , 2019, 46, 7113-7120.	1.5	15
23	Multi-instrument observations of large-scale atmospheric gravity waves/traveling ionospheric disturbances associated with enhanced auroral activity over Svalbard. <i>Advances in Space Research</i> , 2019, 63, 270-281.	1.2	5
24	How Often Do Thermally Excited 630.0 nm Emissions Occur in the Polar Ionosphere?. <i>Journal of Geophysical Research: Space Physics</i> , 2018, 123, 698-710.	0.8	4
25	Recent Developments in Our Knowledge of Inner Magnetosphere-Ionosphere Convection. <i>Journal of Geophysical Research: Space Physics</i> , 2018, 123, 7276-7282.	0.8	4
26	GPS Scintillations and Losses of Signal Lock at High Latitudes During the 2015 St. Patrick's Day Storm. <i>Journal of Geophysical Research: Space Physics</i> , 2018, 123, 7943-7957.	0.8	24
27	Observations of Asymmetries in Ionospheric Return Flow During Different Levels of Geomagnetic Activity. <i>Journal of Geophysical Research: Space Physics</i> , 2018, 123, 4638-4651.	0.8	19
28	A New Empirical Model of the Subauroral Polarization Stream. <i>Journal of Geophysical Research: Space Physics</i> , 2018, 123, 7342-7357.	0.8	16
29	The Ion/Electron Temperature Characteristics of Polar Cap Classical and Hot Patches and Their Influence on Ion Upflow. <i>Geophysical Research Letters</i> , 2018, 45, 8072-8080.	1.5	20
30	Seasonal and Solar Cycle Variations of Thermally Excited 630.0 nm Emissions in the Polar Ionosphere. <i>Journal of Geophysical Research: Space Physics</i> , 2018, 123, 7029-7039.	0.8	2
31	On the contribution of thermal excitation to the total 630.0 nm emissions in the northern cusp ionosphere. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 1234-1245.	0.8	3
32	Dynamic properties of throat aurora revealed by simultaneous ground and satellite observations. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 3469-3486.	0.8	14
33	Energetic Proton Spectra Measured by the Van Allen Probes. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 10,129.	0.8	12
34	Simultaneous observations of traveling convection vortices: Ionosphere-thermosphere coupling. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 4943-4959.	0.8	10
35	Equatorward propagating auroral arcs driven by ULF wave activity: Multipoint ground- and space-based observations in the dusk sector auroral oval. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 5591-5605.	0.8	17
36	GPS scintillations associated with cusp dynamics and polar cap patches. <i>Journal of Space Weather and Space Climate</i> , 2017, 7, A23.	1.1	46

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37	Challenges and Strategic Research Plans for Earth and Heliosphere: Research Infrastructures, Projects and Initiatives. Proceedings of the International Astronomical Union, 2017, 13, 219-225.	0.0	0
38	Dynamic effects of restoring footpoint symmetry on closed magnetic field lines. Journal of Geophysical Research: Space Physics, 2016, 121, 3963-3977.	0.8	24
39	Statistical study of the GNSS phase scintillation associated with two types of auroral blobs. Journal of Geophysical Research: Space Physics, 2016, 121, 4679-4697.	0.8	46
40	Scintillation and irregularities from the nightside part of a Sun-aligned polar cap arc. Journal of Geophysical Research: Space Physics, 2016, 121, 5723-5736.	0.8	15
41	<i>F</i> region ionosphere effects on the mapping accuracy of SuperDARN HF radar echoes. Radio Science, 2016, 51, 490-506.	0.8	8
42	GPS phase scintillation at high latitudes during the geomagnetic storm of 17-18 March 2015. Journal of Geophysical Research: Space Physics, 2016, 121, 10,448.	0.8	49
43	The science case for the EISCAT_3D radar. Progress in Earth and Planetary Science, 2015, 2, .	1.1	60
44	Scintillation and loss of signal lock from poleward moving auroral forms in the cusp ionosphere. Journal of Geophysical Research: Space Physics, 2015, 120, 9161-9175.	0.8	55
45	Ion upflow dependence on ionospheric density and solar photoionization. Journal of Geophysical Research: Space Physics, 2015, 120, 10039-10052.	0.8	16
46	Severe and localized GNSS scintillation at the poleward edge of the nightside auroral oval during intense substorm aurora. Journal of Geophysical Research: Space Physics, 2015, 120, 10,607.	0.8	54
47	Van Allen probes, NOAA, GOES, and ground observations of an intense EMIC wave event extending over 12 h in magnetic local time. Journal of Geophysical Research: Space Physics, 2015, 120, 5465-5488.	0.8	127
48	Simultaneous ground-based optical and HF radar observations of the ionospheric footprint of the open/closed field line boundary along the geomagnetic meridian. Journal of Geophysical Research: Space Physics, 2015, 120, 9859-9874.	0.8	12
49	In-flight calibration of NOAA POES proton detectors—Derivation of the MEPED correction factors. Journal of Geophysical Research: Space Physics, 2015, 120, 9578-9593.	0.8	35
50	Intensity asymmetries in the dusk sector of the poleward auroral oval due to IMF <i>B<sub>x</sub></i> . Journal of Geophysical Research: Space Physics, 2014, 119, 9497-9507.	0.8	29
51	Day-night coupling by a localized flow channel visualized by polar cap patch propagation. Geophysical Research Letters, 2014, 41, 3701-3709.	1.5	65
52	GPS scintillation and irregularities at the front of an ionization tongue in the nightside polar ionosphere. Journal of Geophysical Research: Space Physics, 2014, 119, 8624-8636.	0.8	59
53	Multi-instrument observations from Svalbard of a traveling convection vortex, electromagnetic ion cyclotron wave burst, and proton precipitation associated with a bow shock instability. Journal of Geophysical Research: Space Physics, 2013, 118, 2975-2997.	0.8	38
54	Space weather challenges of the polar cap ionosphere. Journal of Space Weather and Space Climate, 2013, 3, A02.	1.1	112

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55	A comparison of SuperDARN ACF fitting methods. <i>Radio Science</i> , 2013, 48, 274-282.	0.8	31
56	On the nonconjugacy of nightside aurora and their generator mechanisms. <i>Journal of Geophysical Research: Space Physics</i> , 2013, 118, 3394-3406.	0.8	27
57	Thermally excited 630.0nm O(1D) emission in the cusp: A frequent highaltitude transient signature. <i>Journal of Geophysical Research: Space Physics</i> , 2013, 118, 5842-5852.	0.8	10
58	Spectral enhancements associated with Pi1B events observed at high latitude. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	1
59	Effects of modification of the polar ionosphere with high-power short-wave extraordinary-mode HF waves produced by the spear heating facility. <i>Radiophysics and Quantum Electronics</i> , 2012, 55, 126-141.	0.1	2
60	First insitu measurements of HF radar echoing targets. <i>Geophysical Research Letters</i> , 2012, 39, .	1.5	80
61	In situ measurements of plasma irregularity growth in the cusp ionosphere. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	55
62	Determining the axial direction of highshear flux transfer events: Implications for models of FTE structure. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	22
63	Electron temperature in the cusp as measured with the SCIFER sounding rocket. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	7
64	First radar observations in the vicinity of the plasmopause of pulsed ionospheric flows generated by bursty bulk flows. <i>Geophysical Research Letters</i> , 2011, 38, n/a-n/a.	1.5	12
65	Reversed flow events in the cusp ionosphere detected by SuperDARN HF radars. <i>Journal of Geophysical Research</i> , 2011, 116, n/a-n/a.	3.3	28
66	Two methods to forecast auroral displays. <i>Journal of Space Weather and Space Climate</i> , 2011, 1, A03.	1.1	26
67	Thermal ion upflow in the cusp ionosphere and its dependence on soft electron energy flux. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	35
68	In situ measurement of a newly created polar cap patch. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	65
69	On the entry and transit of highdensity plasma across the polar cap. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	73
70	Relativistic electron losses related to EMIC waves during CIR and CME storms. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 2009, 71, 1126-1144.	0.6	60
71	On the source of the polar wind in the polar topside ionosphere: First results from the EISCAT Svalbard radar. <i>Geophysical Research Letters</i> , 2009, 36, .	1.5	14
72	First radar measurements of ionospheric electric fields at subsecond temporal resolution. <i>Geophysical Research Letters</i> , 2008, 35, .	1.5	13

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73	On the relationship between thin Birkeland current arcs and reversed flow channels in the winter cusp/cleft ionosphere. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	44
74	On a new process for cusp irregularity production. <i>Annales Geophysicae</i> , 2008, 26, 2871-2885.	0.6	20
75	TRANS4: a new coupled electron/proton transport code " comparison to observations above Svalbard using ESR, DMSP and optical measurements. <i>Annales Geophysicae</i> , 2007, 25, 661-673.	0.6	19
76	Pulsating dayside aurora in relation to ion upflow events during a northward interplanetary magnetic field (IMF) dominated by a strongly negative IMF BY. <i>Journal of Geophysical Research</i> , 2007, 112, n/a-n/a.	3.3	11
77	Observations of ionospheric convection from the Wallops SuperDARN radar at middle latitudes. <i>Journal of Geophysical Research</i> , 2007, 112, n/a-n/a.	3.3	55
78	Loss of relativistic electrons: Evidence for pitch angle scattering by electromagnetic ion cyclotron waves excited by unstable ring current protons. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	85
79	Observations of Pi2 pulsations by the Wallops HF radar in association with substorm expansion. <i>Geophysical Research Letters</i> , 2007, 34, .	1.5	15
80	Observations of structured optical emissions and particle precipitation equatorward of the traditional auroral oval. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	13
81	Reversed flow events in the winter cusp ionosphere observed by the European Incoherent Scatter (EISCAT) Svalbard radar. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	48
82	Direct observations of injection events of subauroral plasma into the polar cap. <i>Geophysical Research Letters</i> , 2006, 33, .	1.5	69
83	Latitude distribution of vertically precipitating energetic neutral atoms observed at low altitudes. <i>Geophysical Research Letters</i> , 2006, 33, .	1.5	10
84	Height profiles of the ionospheric electron density derived using space-based remote sensing of UV and X ray emissions and EISCAT radar data: A ground-truth experiment. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	7
85	Observations of isolated polar cap patches by the European Incoherent Scatter (EISCAT) Svalbard and Super Dual Auroral Radar Network (SuperDARN) Finland radars. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	62
86	First observations of the temporal/spatial variation of the sub-auroral polarization stream from the SuperDARN Wallops HF radar. <i>Geophysical Research Letters</i> , 2006, 33, .	1.5	70
87	Identification of the temperature gradient instability as the source of decameter-scale ionospheric irregularities on plasmopause field lines. <i>Geophysical Research Letters</i> , 2006, 33, n/a-n/a.	1.5	34
88	EISCAT observations of plasma patches at sub-auroral cusp latitudes. <i>Annales Geophysicae</i> , 2006, 24, 2363-2374.	0.6	51
89	Ionospheric signatures of the low-latitude boundary layer under conditions of northward IMF and small clock angle. <i>Annales Geophysicae</i> , 2006, 24, 2169-2178.	0.6	3
90	Estimates of magnetotail reconnection rate based on IMAGE FUV and EISCAT measurements. <i>Annales Geophysicae</i> , 2005, 23, 123-134.	0.6	18

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91	Multi-instrument mapping of the small-scale flow dynamics related to a cusp auroral transient. <i>Annales Geophysicae</i> , 2005, 23, 2657-2670.	0.6	54
92	Motion of the dayside polar cap boundary during substorm cycles: II. Generation of poleward-moving events and polar cap patches by pulses in the magnetopause reconnection rate. <i>Annales Geophysicae</i> , 2005, 23, 3513-3532.	0.6	39
93	Motion of the dayside polar cap boundary during substorm cycles: I. Observations of pulses in the magnetopause reconnection rate. <i>Annales Geophysicae</i> , 2005, 23, 3495-3511.	0.6	27
94	Simultaneous optical, CUTLASS HF radar, and FAST spacecraft observations: signatures of boundary layer processes in the cusp. <i>Annales Geophysicae</i> , 2004, 22, 511-525.	0.6	19
95	The dynamics and relationships of precipitation, temperature and convection boundaries in the dayside auroral ionosphere. <i>Annales Geophysicae</i> , 2004, 22, 1973-1987.	0.6	34
96	Evidence for particle injection as the cause of Dst reduction during HILDCAA events. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 2004, 66, 177-186.	0.6	62
97	Ionospheric patch formation: Direct measurements of the origin of a polar cap patch. <i>Geophysical Research Letters</i> , 2004, 31, .	1.5	74
98	Energetic particle sounding of the magnetopause: A contribution by Cluster/RAPID. <i>Journal of Geophysical Research</i> , 2004, 109, .	3.3	14
99	High-resolution observations of the small-scale flow pattern associated with a poleward moving auroral form in the cusp. <i>Geophysical Research Letters</i> , 2004, 31, n/a-n/a.	1.5	65
100	On the relationship between ion upflow events and cusp auroral transients. <i>Geophysical Research Letters</i> , 2004, 31, n/a-n/a.	1.5	45
101	Storm time equatorial belt - an image of RC behavior. <i>Geophysical Research Letters</i> , 2003, 30, .	1.5	33
102	Variations in the polar cap area during two substorm cycles. <i>Annales Geophysicae</i> , 2003, 21, 1121-1140.	0.6	173
103	ESR mapping of polar-cap patches in the dark cusp. <i>Geophysical Research Letters</i> , 2002, 29, 24-1-24-4.	1.5	44
104	Three-dimensional energetic ion sounding of the magnetopause using Cluster/RAPID. <i>Geophysical Research Letters</i> , 2002, 29, 61-1-61-4.	1.5	28
105	Ring current intensity estimated from low-altitude proton observations. <i>Journal of Geophysical Research</i> , 2002, 107, SMP 30-1.	3.3	38
106	Cluster boundary layer measurements and optical observations at magnetically conjugate sites. <i>Annales Geophysicae</i> , 2001, 19, 1655-1668.	0.6	17
107	Optical and particle signatures of magnetospheric boundary layers near magnetic noon: Satellite and ground-based observations. <i>Journal of Geophysical Research</i> , 2000, 105, 27555-27568.	3.3	22
108	Correlation between core ion energization, suprathermal electron bursts, and broadband ELF plasma waves. <i>Journal of Geophysical Research</i> , 1998, 103, 4171-4186.	3.3	94

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109	The Linkage between the Ring Current and the Ionosphere System. Geophysical Monograph Series, 0, , 135-143.	0.1	9
110	Ring Current Behavior as Revealed by Energetic Proton Precipitation. Geophysical Monograph Series, 0, , 237-247.	0.1	7
111	Proton injections into the ring current associated with B <sub>z</sub> variations during HILDCAA events. Geophysical Monograph Series, 0, , 249-255.	0.1	11
112	Exploring solar-terrestrial interactions via multiple imaging observers. Experimental Astronomy, 0, , 1.	1.6	3