

Miguel F Larsen

List of Publications by Year in descending order

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76
papers

3,039
citations

186209

28
h-index

161767

54
g-index

78
all docs

78
docs citations

78
times ranked

1641
citing authors

#	ARTICLE	IF	CITATIONS
1	Gradient Winds and Neutral Flow Dawnâ€Dusk Asymmetry in the Auroral Oval During Geomagnetically Disturbed Conditions. <i>Journal of Geophysical Research: Space Physics</i> , 2022, 127, .	0.8	2
2	Validation of Multistatic Meteor Radar Analysis Using Modeled Mesospheric Dynamics: An Assessment of the Reliability of Gradients and Vertical Velocities. <i>Journal of Geophysical Research D: Atmospheres</i> , 2022, 127, .	1.2	1
3	Dual Sounding Rocket and C/NOFS Satellite Observations of DC Electric Fields and Plasma Density in the Equatorial Eâ€and Fâ€Region Ionosphere at Sunset. <i>Journal of Geophysical Research: Space Physics</i> , 2022, 127, .	0.8	4
4	A Study of Postâ€Sunset Spreadâ€F Initiation During the 2013 EVEX Campaign. <i>Journal of Geophysical Research: Space Physics</i> , 2022, 127, .	0.8	1
5	Mesoscale Spatial Variability of Lower Thermospheric Winds During the Anomalous Transport Rocket Experiment. <i>Journal of Geophysical Research: Space Physics</i> , 2022, 127, .	0.8	2
6	Resolving Vertical Variations of Horizontal Neutral Winds in Earth's High Latitude Spaceâ€Atmosphere Interaction Region (SAIR). <i>Journal of Geophysical Research: Space Physics</i> , 2022, 127, .	0.8	3
7	Cloud Formation From a Localized Water Release in the Upper Mesosphere: Indication of Rapid Cooling. <i>Journal of Geophysical Research: Space Physics</i> , 2021, 126, e2019JA027285.	0.8	7
8	VHF Imaging Radar Observations and Theory of Banded Midlatitude Sporadic <i>E</i> Ionization Layers. <i>Journal of Geophysical Research: Space Physics</i> , 2021, 126, e2021JA029257.	0.8	4
9	An Investigation of Auroral E Region Energy Exchange Using Poker Flat Incoherent Scatter Radar Observations During Fall Equinox Conditions. <i>Journal of Geophysical Research: Space Physics</i> , 2021, 126, e2021JA029371.	0.8	4
10	Daytime Dynamo Electrodynamics With Spiral Currents Driven by Strong Winds Revealed by Vapor Trails and Sounding Rocket Probes. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL088803.	1.5	12
11	Equatorial F â€Region Plasma Waves and Instabilities Observed Near Midnight at Solar Minimum During the NASA Too WINDY Sounding Rocket Experiment. <i>Journal of Geophysical Research: Space Physics</i> , 2020, 125, e2020JA028408.	0.8	0
12	In Situ Observations of Neutral Shear Instability in the Statically Stable Highâ€Latitude Mesosphere and Lower Thermosphere During Quiet Geomagnetic Conditions. <i>Journal of Geophysical Research: Space Physics</i> , 2020, 125, e2020JA027972.	0.8	7
13	Radar Investigation of Postsunset Equatorial Ionospheric Instability Over Kwajalein During Project WINDY. <i>Journal of Geophysical Research: Space Physics</i> , 2020, 125, e2020JA027997.	0.8	7
14	Major upwelling and overturning in the mid-latitude F region ionosphere. <i>Nature Communications</i> , 2018, 9, 3326.	5.8	32
15	Simultaneous FPI and TMA Measurements of the Lower Thermospheric Wind in the Vicinity of the Poleward Expanding Aurora After Substorm Onset. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 10,864.	0.8	3
16	Comparisons of JOULE 1 rocket thermospheric wind observations in high latitudes with GITM simulations. <i>Science China Technological Sciences</i> , 2017, 60, 412-418.	2.0	0
17	Smallâ€scale fluctuations in barium drifts at high latitudes and associated Joule heating effects. <i>Journal of Geophysical Research: Space Physics</i> , 2016, 121, 779-789.	0.8	6
18	Equatorial <i>F</i> region neutral winds and shears near sunset measured with chemical release techniques. <i>Journal of Geophysical Research: Space Physics</i> , 2015, 120, 9004-9013.	0.8	6

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19	High time and height resolution neutral wind profile measurements across the mesosphere/lower thermosphere region using the Arecibo incoherent scatter radar. <i>Journal of Geophysical Research: Space Physics</i> , 2014, 119, 2345-2358.	0.8	23
20	Wind measurements: Trimethyl aluminum (TMA) chemical release technique. , 2013, , 47-51.		3
21	Vertical winds in the thermosphere. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	34
22	High-latitude region ionosphere-thermosphere coupling: A comparative study using in situ and incoherent scatter radar observations. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	11
23	Ground and Space-Based Measurement of Rocket Engine Burns in the Ionosphere. <i>IEEE Transactions on Plasma Science</i> , 2012, 40, 1267-1286.	0.6	58
24	Dynamic instability in the lower thermosphere inferred from irregular sporadic <i>E</i> layers. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	18
25	The Horizontal E-region Experiment: Evidence for inertial instability on the evening side of the auroral oval?. <i>Geophysical Research Letters</i> , 2011, 38, n/a-n/a.	1.5	3
26	Optical Emissions Observed During the Charged Aerosol Release Experiment (CARE I) in the Ionosphere. <i>IEEE Transactions on Plasma Science</i> , 2011, 39, 2774-2775.	0.6	20
27	Estimates of vertical eddy diffusivity in the upper mesosphere in the presence of a mesospheric inversion layer. <i>Annales Geophysicae</i> , 2011, 29, 2019-2029.	0.6	17
28	In-situ observations of high-latitude thermosphere-mesosphere turbulence. <i>AIP Conference Proceedings</i> , 2011, , .	0.3	1
29	The Turbopause experiment: atmospheric stability and turbulent structure spanning the turbopause altitude. <i>Annales Geophysicae</i> , 2011, 29, 2327-2339.	0.6	19
30	Overtuning instability in the mesosphere and lower thermosphere: analysis of instability conditions in lidar data. <i>Annales Geophysicae</i> , 2009, 27, 2937-2945.	0.6	5
31	Two-dimensional turbulence, space shuttle plume transport in the thermosphere, and a possible relation to the Great Siberian Impact Event. <i>Geophysical Research Letters</i> , 2009, 36, .	1.5	28
32	Sporadic <i>E</i> layer observations over Arecibo using coherent and incoherent scatter radar: Assessing dynamic stability in the lower thermosphere. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	46
33	Rocket-based measurements of ion velocity, neutral wind, and electric field in the collisional transition region of the auroral ionosphere. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	39
34	Accuracy issues of the existing thermospheric wind models: can we rely on them in seeking solutions to wind-driven problems?. <i>Annales Geophysicae</i> , 2009, 27, 2277-2284.	0.6	22
35	An empirical model of the Earth's horizontal wind fields: HWM07. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	448
36	First measurements of neutral wind and turbulence in the mesosphere and lower thermosphere over Taiwan with a chemical release experiment. <i>Journal of Geophysical Research</i> , 2007, 112, n/a-n/a.	3.3	22

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37	Imaging coherent scatter radar, incoherent scatter radar, and optical observations of quasiperiodic structures associated with sporadic E layers. <i>Journal of Geophysical Research</i> , 2007, 112, n/a-n/a.	3.3	36
38	New observations of artificial aurora associated with TMA releases. <i>Geophysical Research Letters</i> , 2006, 33, .	1.5	1
39	The HEX experiment: Determination of the neutral wind field from 120 to 185 km altitude near a stable premidnight auroral arc by triangulating the drift of rocket-deployed chemical trails. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	8
40	Arecibo observations of ionospheric perturbations associated with the passage of Tropical Storm Odette. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	58
41	Observations of colocated optical and radar aurora. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	18
42	Shear flow effects at the onset of equatorial spread F. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	21
43	Rocket and radar investigation of background electrodynamics and bottom-type scattering layers at the onset of equatorial spread F. <i>Annales Geophysicae</i> , 2006, 24, 1387-1400.	0.6	39
44	Observations of neutral winds, wind shears, and wave structure during a sporadic E/QP event. <i>Annales Geophysicae</i> , 2005, 23, 2369-2375.	0.6	44
45	Sequential observations of the local neutral wind field structure associated with E region plasma layers. <i>Journal of Geophysical Research</i> , 2005, 110, .	3.3	14
46	The 30 MHz imaging radar observations of auroral irregularities during the JOULE campaign. <i>Journal of Geophysical Research</i> , 2005, 110, .	3.3	46
47	Onset conditions for equatorial spread F determined during EQUIS II. <i>Geophysical Research Letters</i> , 2005, 32, .	1.5	50
48	Common volume coherent and incoherent scatter radar observations of mid-latitude sporadic E-layers and QP echoes. <i>Annales Geophysicae</i> , 2004, 22, 3277-3290.	0.6	76
49	Airglow emissions and oxygen mixing ratios from the photometer experiment on the Turbulent Oxygen Mixing Experiment (TOMEX). <i>Journal of Geophysical Research</i> , 2004, 109, .	3.3	15
50	Unstable layers in the mesopause region observed with Na lidar during the Turbulent Oxygen Mixing Experiment (TOMEX) campaign. <i>Journal of Geophysical Research</i> , 2004, 109, .	3.3	50
51	Observations of overturning in the upper mesosphere and lower thermosphere. <i>Journal of Geophysical Research</i> , 2004, 109, .	3.3	29
52	TOMEX: Mesospheric and lower thermospheric diffusivities and instability layers. <i>Journal of Geophysical Research</i> , 2004, 109, .	3.3	38
53	An overview of observations of unstable layers during the Turbulent Oxygen Mixing Experiment (TOMEX). <i>Journal of Geophysical Research</i> , 2004, 109, .	3.3	30
54	TOMEX: A comparison of lidar and sounding rocket chemical tracer wind measurements. <i>Geophysical Research Letters</i> , 2003, 30, .	1.5	20

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55	Winds and shears in the mesosphere and lower thermosphere: Results from four decades of chemical release wind measurements. <i>Journal of Geophysical Research</i> , 2002, 107, SIA 28-1-SIA 28-14.	3.3	199
56	Auroral emissions due to a dusty plasma instability. <i>AIP Conference Proceedings</i> , 2000, , .	0.3	0
57	Coqui 2: Mesospheric and lower thermospheric wind observations over Puerto Rico. <i>Geophysical Research Letters</i> , 2000, 27, 445-448.	1.5	30
58	Observations of QP radar echo structure consistent with neutral wind shear control of the initiation mechanism. <i>Geophysical Research Letters</i> , 2000, 27, 867-870.	1.5	14
59	A shear instability seeding mechanism for quasiperiodic radar echoes. <i>Journal of Geophysical Research</i> , 2000, 105, 24931-24940.	3.3	148
60	The SEEK Chemical Release Experiment: Observed neutral wind profile in a region of sporadic E. <i>Geophysical Research Letters</i> , 1998, 25, 1789-1792.	1.5	65
61	JULIA radar studies of electric fields in the equatorial electrojet. <i>Geophysical Research Letters</i> , 1997, 24, 1687-1690.	1.5	46
62	Observations of altitudinal and latitudinal E-region neutral wind gradients near sunset at the magnetic equator. <i>Geophysical Research Letters</i> , 1997, 24, 1711-1714.	1.5	22
63	The GuarÃ¡ Campaign: A series of rocket-radar investigations of the Earth's upper atmosphere at the magnetic equator. <i>Geophysical Research Letters</i> , 1997, 24, 1663-1666.	1.5	28
64	Observations of unstable atmospheric shear layers in the lower E region in the post-midnight auroral oval. <i>Geophysical Research Letters</i> , 1997, 24, 1915-1918.	1.5	23
65	E region neutral winds in the postmidnight diffuse aurora during the atmospheric response in Aurora 1 Rocket Campaign. <i>Journal of Geophysical Research</i> , 1995, 100, 17309.	3.3	20
66	Modified geostrophy in the thermosphere. <i>Journal of Geophysical Research</i> , 1995, 100, 17321.	3.3	28
67	Atmospheric Response in Aurora experiment: Observations of E and F region neutral winds in a region of postmidnight diffuse aurora. <i>Journal of Geophysical Research</i> , 1995, 100, 17299.	3.3	28
68	First observations of precipitation with a spatial interferometer. <i>Geophysical Research Letters</i> , 1992, 19, 2409-2412.	1.5	5
69	Frequency domain interferometry observations of tropo/stratospheric scattering layers using the MU radar: Description and first results. <i>Geophysical Research Letters</i> , 1990, 17, 2189-2192.	1.5	22
70	Simultaneous observations of neutral winds and electric fields at spaced locations in the dawn auroral oval. <i>Journal of Geophysical Research</i> , 1989, 94, 17235-17243.	3.3	33
71	A simple model describing the nonlinear dynamics of the dusk/dawn asymmetry in the high-latitude thermospheric flow. <i>Geophysical Research Letters</i> , 1988, 15, 307-310.	1.5	21
72	The prereversal enhancement of the zonal electric field in the equatorial ionosphere. <i>Journal of Geophysical Research</i> , 1986, 91, 13723-13728.	3.3	324

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73	The dynamic response of the high-latitude thermosphere and geostrophic adjustment. Journal of Geophysical Research, 1983, 88, 3158-3168.	3.3	52
74	Neutral winds and electric fields in the dusk auroral oval 1. Measurements. Journal of Geophysical Research, 1981, 86, 1513-1524.	3.3	64
75	Neutral winds and electric fields in the dusk auroral oval 2. Theory and model. Journal of Geophysical Research, 1981, 86, 1525-1536.	3.3	30
76	Gravity wave initiation of equatorial spread F: A case study. Journal of Geophysical Research, 1981, 86, 9087-9100.	3.3	326