Miguel F Larsen

List of Publications by Year
in descending order

76 papers	3,039 citations	185998 28 h-index	161609 54 g-index
78 all docs	78 docs citations	78 times ranked	1641 citing authors

#	Article	IF	Citations
1	An empirical model of the Earth's horizontal wind fields: HWM07. Journal of Geophysical Research, 2008, 113, .	3.3	448
2	Gravity wave initiation of equatorial spread F: A case study. Journal of Geophysical Research, 1981, 86, 9087-9100.	3.3	326
3	The prereversal enhancement of the zonal electric field in the equatorial ionosphere. Journal of Geophysical Research, 1986, 91, 13723-13728.	3.3	324
4	Winds and shears in the mesosphere and lower thermosphere: Results from four decades of chemical release wind measurements. Journal of Geophysical Research, 2002, 107, SIA 28-1-SIA 28-14.	3.3	199
5	A shear instability seeding mechanism for quasiperiodic radar echoes. Journal of Geophysical Research, 2000, 105, 24931-24940.	3.3	148
6	Common volume coherent and incoherent scatter radar observations of mid-latitude sporadic E-layers and QP echoes. Annales Geophysicae, 2004, 22, 3277-3290.	0.6	76
7	The SEEK Chemical Release Experiment: Observed neutral wind profile in a region of sporadic E. Geophysical Research Letters, 1998, 25, 1789-1792.	1.5	65
8	Neutral winds and electric fields in the dusk auroral oval 1. Measurements. Journal of Geophysical Research, 1981, 86, 1513-1524.	3.3	64
9	Arecibo observations of ionospheric perturbations associated with the passage of Tropical Storm Odette. Journal of Geophysical Research, 2006, 111, .	3.3	58
10	Ground and Space-Based Measurement of Rocket Engine Burns in the Ionosphere. IEEE Transactions on Plasma Science, 2012, 40, 1267-1286.	0.6	58
11	The dynamic response of the highâ€latitude thermosphere and geostrophic adjustment. Journal of Geophysical Research, 1983, 88, 3158-3168.	3.3	52
12	Unstable layers in the mesopause region observed with Na lidar during the Turbulent Oxygen Mixing Experiment (TOMEX) campaign. Journal of Geophysical Research, 2004, 109, .	3.3	50
13	Onset conditions for equatorial spreadFdetermined during EQUIS II. Geophysical Research Letters, 2005, 32, .	1.5	50
14	JULIA radar studies of electric fields in the equatorial electrojet. Geophysical Research Letters, 1997, 24, 1687-1690.	1.5	46
15	The 30 MHz imaging radar observations of auroral irregularities during the JOULE campaign. Journal of Geophysical Research, 2005, 110, .	3.3	46
16	Sporadic E layer observations over Arecibo using coherent and incoherent scatter radar: Assessing dynamic stability in the lower thermosphere. Journal of Geophysical Research, 2009, 114, .	3.3	46
17	Observations of neutral winds, wind shears, and wave structure during a sporadic-<i>E</i>/QP event. Annales Geophysicae, 2005, 23, 2369-2375.	0.6	44
18	Rocket and radar investigation of background electrodynamics and bottom-type scattering layers at the onset of equatorial spread <i>F</i>. Annales Geophysicae, 2006, 24, 1387-1400.	0.6	39

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19	Rocketâ€based measurements of ion velocity, neutral wind, and electric field in the collisional transition region of the auroral ionosphere. Journal of Geophysical Research, 2009, 114, .	3.3	39
20	TOMEX: Mesospheric and lower thermospheric diffusivities and instability layers. Journal of Geophysical Research, 2004, 109, .	3.3	38
21	Imaging coherent scatter radar, incoherent scatter radar, and optical observations of quasiperiodic structures associated with sporadicElayers. Journal of Geophysical Research, 2007, 112, n/a-n/a.	3.3	36
22	Vertical winds in the thermosphere. Journal of Geophysical Research, 2012, 117, .	3.3	34
23	Simultaneous observations of neutral winds and electric fields at spaced locations in the dawn auroral oval. Journal of Geophysical Research, 1989, 94, 17235-17243.	3.3	33
24	Major upwelling and overturning in the mid-latitude F region ionosphere. Nature Communications, 2018, 9, 3326.	5.8	32
25	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
26	Coqui 2: Mesospheric and lower thermospheric wind observations over Puerto Rico. Geophysical Research Letters, 2000, 27, 445-448.	1.5	30
27	An overview of observations of unstable layers during the Turbulent Oxygen Mixing Experiment (TOMEX). Journal of Geophysical Research, 2004, 109, .	3.3	30
28	Observations of overturning in the upper mesosphere and lower thermosphere. Journal of Geophysical Research, 2004, 109, .	3.3	29
29	Modified geostrophy in the thermosphere. Journal of Geophysical Research, 1995, 100, 17321.	3.3	28
30	Atmospheric Response in Aurora experiment: Observations ofEandFregion neutral winds in a region of postmidnight diffuse aurora. Journal of Geophysical Research, 1995, 100, 17299.	3.3	28
31	The GuarÃ¡ Campaign: A series of rocket-radar investigations of the Earth's upper atmosphere at the magnetic equator. Geophysical Research Letters, 1997, 24, 1663-1666.	1.5	28
32	Twoâ€dimensional turbulence, space shuttle plume transport in the thermosphere, and a possible relation to the Great Siberian Impact Event. Geophysical Research Letters, 2009, 36, .	1.5	28
33	Observations of unstable atmospheric shear layers in the lowerEregion in the post-midnight auroral oval. Geophysical Research Letters, 1997, 24, 1915-1918.	1.5	23
34	High time and height resolution neutral wind profile measurements across the mesosphere/lower thermosphere region using the Arecibo incoherent scatter radar. Journal of Geophysical Research: Space Physics, 2014, 119, 2345-2358.	0.8	23
35	Frequency domain interferometry observations of tropo/stratospheric scattering layers using the MU radar: Description and first results. Geophysical Research Letters, 1990, 17, 2189-2192.	1.5	22
36	Observations of altitudinal and latitudinal E-region neutral wind gradients near sunset at the magnetic equator. Geophysical Research Letters, 1997, 24, 1711-1714.	1.5	22

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37	First measurements of neutral wind and turbulence in the mesosphere and lower thermosphere over Taiwan with a chemical release experiment. Journal of Geophysical Research, 2007, 112, n/a-n/a.	3.3	22
38	Accuracy issues of the existing thermospheric wind models: can we rely on them in seeking solutions to wind-driven problems?. Annales Geophysicae, 2009, 27, 2277-2284.	0.6	22
39	A simple model describing the nonlinear dynamics of the dusk/dawn asymmetry in the highâ€latitude thermospheric flow. Geophysical Research Letters, 1988, 15, 307-310.	1.5	21
40	Shear flow effects at the onset of equatorial spreadF. Journal of Geophysical Research, 2006, 111, .	3.3	21
41	ERegion neutral winds in the postmidnight diffuse aurora during the atmospheric response in Aurora 1 Rocket Campaign. Journal of Geophysical Research, 1995, 100, 17309.	3.3	20
42	TOMEX: A comparison of lidar and sounding rocket chemical tracer wind measurements. Geophysical Research Letters, 2003, 30, .	1.5	20
43	Optical Emissions Observed During the Charged Aerosol Release Experiment (CARE I) in the Ionosphere. IEEE Transactions on Plasma Science, 2011, 39, 2774-2775.	0.6	20
44	The Turbopause experiment: atmospheric stability and turbulent structure spanning the turbopause altitude. Annales Geophysicae, 2011, 29, 2327-2339.	0.6	19
45	Observations of colocated optical and radar aurora. Journal of Geophysical Research, 2006, 111, .	3.3	18
46	Dynamic instability in the lower thermosphere inferred from irregular sporadic E layers. Journal of Geophysical Research, 2012, 117, .	3.3	18
47	Estimates of vertical eddy diffusivity in the upper mesosphere in the presence of a mesospheric inversion layer. Annales Geophysicae, 2011, 29, 2019-2029.	0.6	17
48	Airglow emissions and oxygen mixing ratios from the photometer experiment on the Turbulent Oxygen Mixing Experiment (TOMEX). Journal of Geophysical Research, 2004, 109, .	3.3	15
49	Observations of QP radar echo structure consistent with neutral wind shear control of the initiation mechanism. Geophysical Research Letters, 2000, 27, 867-870.	1.5	14
50	Sequential observations of the local neutral wind field structure associated with E region plasma layers. Journal of Geophysical Research, 2005, 110, .	3.3	14
51	Daytime Dynamo Electrodynamics With Spiral Currents Driven by Strong Winds Revealed by Vapor Trails and Sounding Rocket Probes. Geophysical Research Letters, 2020, 47, e2020GL088803.	1.5	12
52	Highâ€latitudeEregionionosphereâ€thermosphere coupling: A comparative study using in situ and incoherent scatter radar observations. Journal of Geophysical Research, 2012, 117, .	3.3	11
53	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. Journal of Geophysical Research, 2006, 111, .	3.3	8
54	In Situ Observations of Neutral Shear Instability in the Statically Stable Highâ€Latitude Mesosphere and Lower Thermosphere During Quiet Geomagnetic Conditions. Journal of Geophysical Research: Space Physics, 2020, 125, e2020JA027972.	0.8	7

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55	Radar Investigation of Postsunset Equatorial Ionospheric Instability Over Kwajalein During Project WINDY. Journal of Geophysical Research: Space Physics, 2020, 125, e2020JA027997.	0.8	7
56	Cloud Formation From a Localized Water Release in the Upper Mesosphere: Indication of Rapid Cooling. Journal of Geophysical Research: Space Physics, 2021, 126, e2019JA027285.	0.8	7
57	Equatorial F region neutral winds and shears near sunset measured with chemical release techniques. Journal of Geophysical Research: Space Physics, 2015, 120, 9004-9013.	0.8	6
58	Smallâ€scale fluctuations in barium drifts at high latitudes and associated Joule heating effects. Journal of Geophysical Research: Space Physics, 2016, 121, 779-789.	0.8	6
59	First observations of precipitation with a spatial interferometer. Geophysical Research Letters, 1992, 19, 2409-2412.	1.5	5
60	Overturning instability in the mesosphere and lower thermosphere: analysis of instability conditions in lidar data. Annales Geophysicae, 2009, 27, 2937-2945.	0.6	5
61	VHF Imaging Radar Observations and Theory of Banded Midlatitude Sporadic E Ionization Layers. Journal of Geophysical Research: Space Physics, 2021, 126, e2021JA029257.	0.8	4
62	An Investigation of Auroral E Region Energy Exchange Using Poker Flat Incoherent Scatter Radar Observations During Fall Equinox Conditions. Journal of Geophysical Research: Space Physics, 2021, 126, e2021JA029371.	0.8	4
63	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. Journal of Geophysical Research: Space Physics, 2022, 127, .	0.8	4
64	The Horizontal E-region Experiment: Evidence for inertial instability on the evening side of the auroral oval?. Geophysical Research Letters, 2011, 38, n/a-n/a.	1.5	3
65	Simultaneous FPI and TMA Measurements of the Lower Thermospheric Wind in the Vicinity of the Poleward Expanding Aurora After Substorm Onset. Journal of Geophysical Research: Space Physics, 2017, 122, 10,864.	0.8	3
66	Wind measurements: Trimethyl aluminum (TMA) chemical release technique. , 2013, , 47-51.		3
67	Resolving Vertical Variations of Horizontal Neutral Winds in Earth's High Latitude Spaceâ€Atmosphere Interaction Region (SAIR). Journal of Geophysical Research: Space Physics, 2022, 127, .	0.8	3
68	Gradient Winds and Neutral Flow Dawnâ€Dusk Asymmetry in the Auroral Oval During Geomagnetically Disturbed Conditions. Journal of Geophysical Research: Space Physics, 2022, 127, .	0.8	2
69	Mesoscale Spatial Variability of Lower Thermospheric Winds During the Anomalous Transport Rocket Experiment. Journal of Geophysical Research: Space Physics, 2022, 127, .	0.8	2
70	New observations of artificial aurora associated with TMA releases. Geophysical Research Letters, 2006, 33, .	1.5	1
71	In-situ observations of high-latitude thermosphere-mesosphere turbulence. AIP Conference Proceedings, 2011, , .	0.3	1
72	Validation of Multistatic Meteor Radar Analysis Using Modeled Mesospheric Dynamics: An Assessment of the Reliability of Gradients and Vertical Velocities. Journal of Geophysical Research D: Atmospheres, 2022, 127, .	1.2	1

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73	A Study of Postâ€Sunset Spreadâ€F Initiation During the 2013 EVEX Campaign. Journal of Geophysical Research: Space Physics, 2022, 127, .	0.8	1
74	Auroral emissions due to a dusty plasma instability. AIP Conference Proceedings, 2000, , .	0.3	0
75	Comparisons of JOULE 1 rocket thermospheric wind observations in high latitudes with GITM simulations. Science China Technological Sciences, 2017, 60, 412-418.	2.0	0
76	Equatorial F â€Region Plasma Waves and Instabilities Observed Near Midnight at Solar Minimum During the NASA Too WINDY Sounding Rocket Experiment. Journal of Geophysical Research: Space Physics, 2020, 125, e2020JA028408.	0.8	0