M R Lessard

List of Publications by Year
in descending order

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79 papers	1,921 citations	218381 26 h-index	288905 40 g-index
80 all docs	80 docs citations	80 times ranked	1301 citing authors

#	Article	IF	Citations
1	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
2	Pc1â€“Pc2 waves and energetic particle precipitation during and after magnetic storms: Superposed epoch analysis and case studies. Journal of Geophysical Research, 2008, 113, .	3.3	96
3	A study of Pc-5 ULF oscillations. Annales Geophysicae, 2004, 22, 289-302.	0.6	71
4	Diffuse and Pulsating Aurora. Space Science Reviews, 2020, 216, 1.	3.7	69
5	Electron precipitation from EMIC waves: A case study from 31 May 2013. Journal of Geophysical Research: Space Physics, 2015, 120, 3618-3631.	0.8	65
6	Pc 1 waves and associated unstable distributions of magnetospheric protons observed during a solar wind pressure pulse. Journal of Geophysical Research, 2005, 110, .	3.3	62
7	A Review of Pulsating Aurora. Geophysical Monograph Series, 0, , 55-68.	0.1	57
8	Temporal and spatial characteristics of Pc1 waves observed by ST5. Journal of Geophysical Research, 2008, 113, .	3.3	55
9	Correlated Pc4â€“5 ULF waves, whistlerâ€mode chorus, and pulsating aurora observed by the Van Allen Probes and groundâ€based systems. Journal of Geophysical Research: Space Physics, 2015, 120, 8749-8761.	0.8	50
10	Ionospheric reflection of small-scale AlfvÃ©n waves. Geophysical Research Letters, 2001, 28, 3573-3576.	1.5	49
11	Fine structures and dynamics in auroral initial brightening at substorm onsets. Annales Geophysicae, 2009, 27, 623-630.	0.6	47
12	Large-scale aspects and temporal evolution of pulsating aurora. Journal of Geophysical Research, 2011, 116, .	3.3	47
13	Pulsating auroral electron flux modulations in the equatorial magnetosphere. Journal of Geophysical Research: Space Physics, 2013, 118, 4884-4894.	0.8	46
14	Solar Modal Structure of the Engineering Environment. Proceedings of the IEEE, 2007, 95, 1085-1132.	16.4	43
15	Confirmation of EMIC waveâ€driven relativistic electron precipitation. Journal of Geophysical Research: Space Physics, 2016, 121, 5366-5383.	0.8	43
16	Ducting characteristics of Pc 1 waves at high latitudes on the ground and in space. Journal of Geophysical Research, 2010, 115, .	3.3	42
17	Nature of Pi1B pulsations as inferred from ground and satellite observations. Geophysical Research Letters, 2006, 33, .	1.5	41
18	Statistical study of Pc1-2 wave propagation characteristics in the high-latitude ionospheric waveguide. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	41

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19	Persistent, widespread pulsating aurora: A case study. Journal of Geophysical Research: Space Physics, 2013, 118, 2998-3006.	0.8	40
20	Multiâ€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
21	PFISR and ROPA observations of pulsating aurora. Journal of Atmospheric and Solar-Terrestrial Physics, 2009, 71, 708-716.	0.6	37
22	MICA sounding rocket observations of conductivityâ€gradientâ€generated auroral ionospheric responses: Smallâ€scale structure with largeâ€scale drivers. Journal of Geophysical Research: Space Physics, 2015, 120, 9661-9682.	0.8	34
23	Auroral ionospheric F region density cavity formation and evolution: MICA campaign results. Journal of Geophysical Research: Space Physics, 2014, 119, 3162-3178.	0.8	32
24	Probing the relationship between electromagnetic ion cyclotron waves and plasmaspheric plumes near geosynchronous orbit. Journal of Geophysical Research, 2010, 115, .	3.3	31
25	MMS, Van Allen Probes, GOES 13, and Groundâ€Based Magnetometer Observations of EMIC Wave Events Before, During, and After a Modest Interplanetary Shock. Journal of Geophysical Research: Space Physics, 2018, 123, 8331-8357.	0.8	30
26	Dayside Aurora. Space Science Reviews, 2019, 215, 1.	3.7	29
27	Ground and satellite observations of the evolution of growth phase auroral arcs. Journal of Geophysical Research, 2007, 112, .	3.3	28
28	In situ observations of Pc1 pearl pulsations by the Van Allen Probes. Geophysical Research Letters, 2014, 41, 1823-1829.	1.5	28
29	Investigating the IMF cone angle control of Pc3â€4 pulsations observed on the ground. Journal of Geophysical Research: Space Physics, 2014, 119, 1797-1813.	0.8	27
30	In situ statistical observations of Pc1 pearl pulsations and unstructured EMIC waves by the Van Allen Probes. Journal of Geophysical Research: Space Physics, 2017, 122, 105-119.	0.8	25
31	Auroral precipitation/ion upwelling as a driver of neutral density enhancement in the cusp. Journal of Atmospheric and Solar-Terrestrial Physics, 2012, 87-88, 82-90.	0.6	24
32	Statistical observations of spatial characteristics of Pi1B pulsations. Journal of Atmospheric and Solar-Terrestrial Physics, 2007, 69, 1775-1796.	0.6	23
33	Compressional Pc5 type pulsations in the morningside plasma sheet. Annales Geophysicae, 2001, 19, 311-320.	0.6	22
34	Low-noise permalloy ring cores for fluxgate magnetometers. Geoscientific Instrumentation, Methods and Data Systems, 2019, 8, 227-240.	0.6	22
35	EMIC Wave Events During the Four GEM QARBM Challenge Intervals. Journal of Geophysical Research: Space Physics, 2018, 123, 6394-6423.	0.8	20
36	A Distributed Lag Autoregressive Model of Geostationary Relativistic Electron Fluxes: Comparing the Influences of Waves, Seed and Source Electrons, and Solar Wind Inputs. Journal of Geophysical Research: Space Physics, 2018, 123, 3646-3671.	0.8	20

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37	Auroral Current and Electrodynamics Structure (ACES) observations of ionospheric feedback in the AlfvÃ©n resonator and model responses. Journal of Geophysical Research: Space Physics, 2013, 118, 3288-3296.	0.8	19
38	Measuring the seeds of ion outflow: Auroral sounding rocket observations of lowâ€altitude ion heating and circulation. Journal of Geophysical Research: Space Physics, 2016, 121, 1587-1607.	0.8	19
39	Pi1B pulsations as a possible driver of AlfvÃ©nic aurora at substorm onset. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	17
40	Fast Auroral Imager (FAI) for the e-POP Mission. Space Science Reviews, 2015, 189, 15-25.	3.7	17
41	Generation of EMIC Waves and Effects on Particle Precipitation During a Solar Wind Pressure Intensification With B_z>0. Journal of Geophysical Research: Space Physics, 2019, 124, 4492-4508.	0.8	17
42	The outer radiation belt injection, transport, acceleration and loss satellite (ORBITALS): A canadian small satellite mission for ILWS. Advances in Space Research, 2006, 38, 1838-1860.	1.2	16
43	Ion upflow dependence on ionospheric density and solar photoionization. Journal of Geophysical Research: Space Physics, 2015, 120, 10039-10052.	0.8	16
44	Including sheath effects in the interpretation of planar retarding potential analyzerâ€™s low-energy ion data. Review of Scientific Instruments, 2016, 87, 043504.	0.6	16
45	Searching for ULF signatures of the cusp: Observations from search coil magnetometers and auroral imagers in Svalbard. Journal of Geophysical Research, 2009, 114, .	3.3	15
46	Comparison of Relativistic Microburst Activity Seen by SAMPEX With Groundâ€Based Wave Measurements at Halley, Antarctica. Journal of Geophysical Research: Space Physics, 2018, 123, 1279-1294.	0.8	15
47	Structure and dynamics of the nightside poleward boundary: Sounding rocket and groundâ€based observations of auroral electron precipitation in a rayed curtain. Journal of Geophysical Research, 2012, 117, .	3.3	14
48	Sounding rocket study of two sequential auroral poleward boundary intensifications. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	12
49	Twoâ€Dimensional Maps of In Situ Ionospheric Plasma Flow Data Near Auroral Arcs Using Auroral Imagery. Journal of Geophysical Research: Space Physics, 2019, 124, 3036-3056.	0.8	12
50	Observations of Particle Loss due to Injectionâ€Associated Electromagnetic Ion Cyclotron Waves. Journal of Geophysical Research: Space Physics, 2021, 126, e2020JA028503.	0.8	11
51	A laboratory experiment to examine the effect of auroral beams on spacecraft charging in the ionosphere. Physics of Plasmas, 2011, 18, 092905.	0.7	10
52	Simultaneous observations of traveling convection vortices: Ionosphereâ€thermosphere coupling. Journal of Geophysical Research: Space Physics, 2017, 122, 4943-4959.	0.8	10
53	Magnetic Conjugacy of Pc1 Waves and Isolated Proton Precipitation at Subauroral Latitudes: Importance of Ionosphere as Intensity Modulation Region. Geophysical Research Letters, 2021, 48, e2020GL091384.	1.5	10
54	PENGUIn multiâ€instrument observations of dayside highâ€latitude injections during the 23 March 2007 substorm. Journal of Geophysical Research, 2009, 114, .	3.3	8

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55	Upstreamâ€generated Pc3 ULF wave signatures observed near the Earth's cusp. Journal of Geophysical Research, 2012, 117, .	3.3	8
56	Rocket-borne measurements of electron temperature and density with the Electron Retarding Potential Analyzer instrument. Journal of Geophysical Research: Space Physics, 2016, 121, 6774-6782.	0.8	8
57	Cluster observations of bandâ€limited Pc 1 waves associated with streaming H⁺ and O⁺ions in the highâ€altitude plasma mantle. Journal of Geophysical Research, 2012, 117, .	3.3	7
58	Electron temperature in the cusp as measured with the SCIFERâ€2 sounding rocket. Journal of Geophysical Research, 2012, 117, .	3.3	7
59	Conjugate observations of electromagnetic ion cyclotron waves associated with traveling convection vortex events. Journal of Geophysical Research: Space Physics, 2017, 122, 7336-7352.	0.8	7
60	Overview of the Rocket Experiment for Neutral Upwelling Sounding Rocket 2 (RENU2). Geophysical Research Letters, 2020, 47, e2018GL081885.	1.5	7
61	Simultaneous traveling convection vortex events and Pc1 wave bursts at cusp latitudes observed in Arctic Canada and Svalbard. Journal of Geophysical Research: Space Physics, 2013, 118, 6352-6363.	0.8	6
62	Auroral ionospheric plasma flow extraction using subsonic retarding potential analyzers. Review of Scientific Instruments, 2020, 91, 094503.	0.6	6
63	Statistical Study of EMIC Wave Propagation Using Spaceâ€Ground Conjugate Observations. Journal of Geophysical Research: Space Physics, 2022, 127, .	0.8	6
64	Solar cycle dependence of ion cyclotron wave frequencies. Journal of Geophysical Research: Space Physics, 2015, 120, 4711-4718.	0.8	5
65	Fastâ€moving diffuse auroral patches: A new aspect of daytime Pc3 auroral pulsations. Journal of Geophysical Research: Space Physics, 2017, 122, 1542-1554.	0.8	5
66	Narrow-band extremely low frequency (ELF) wave phenomena observed at South Pole Station. Geophysical Research Letters, 2006, 33, .	1.5	4
67	Structure of black aurora associated with pulsating aurora. Journal of Geophysical Research: Space Physics, 2015, 120, 10096-10106.	0.8	4
68	Transient Ionospheric Upflow Driven by Poleward Moving Auroral forms Observed During the Rocket Experiment for Neutral Upwelling 2 (RENU2) Campaign. Geophysical Research Letters, 2019, 46, 6297-6305.	1.5	4
69	Comparison of Multiple and Logistic Regression Analyses of Relativistic Electron Flux Enhancement at Geosynchronous Orbit Following Storms. Journal of Geophysical Research: Space Physics, 2019, 124, 10246-10256.	0.8	4
70	Development of Ground-Based Search-Coil Magnetometer for Near-Earth Space Research. Journal of Magnetics, 2016, 21, 509-515.	0.2	4
71	Examining the Auroral Ionosphere in Three Dimensions Using Reconstructed 2D Maps of Auroral Data to Drive the 3D GEMINI Model. Journal of Geophysical Research: Space Physics, 2021, 126, e2021JA029749.	0.8	3
72	Pi1B propagation in the highâ€latitude ionosphere. Journal of Geophysical Research, 2012, 117, .	3.3	2

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73	A Calibration Source for Low Energy Electron Detectors. Geophysical Monograph Series, 0, , 301-306.	0.1	2
74	RENU2 UV PMT Observations of the Cusp. Geophysical Research Letters, 2020, 47, e2019GL082314.	1.5	2
75	A New Technique for Estimating the Lifetime of Bursts of Electron Precipitation From Sounding Rocket Measurements. Geophysical Research Letters, 2020, 47, e2019GL082894.	1.5	2
76	Spectral enhancements associated with Pi1B events observed at high latitude. Journal of Geophysical Research, 2012, 117, .	3.3	1
77	Rocket Investigation of Current Closure in the Ionosphere (RICCI): A novel application of CubeSats from a sounding rocket platform. Advances in Space Research, 2020, 66, 98-106.	1.2	1
78	Observations of sunlit N₂⁺ aurora at high altitudes during the RENU2 flight. Annales Geophysicae, 2021, 39, 849-859.	0.6	1
79	ELF Whistler Dependence on a Sunlit Ionosphere. Journal of Geophysical Research: Space Physics, 2018, 123, 3955-3964.	0.8	0