Steven K Morley

List of Publications by Year
in descending order

93 papers	3,681 citations	156536 32 h-index	162838 57 g-index
107 all docs	107 docs citations	107 times ranked	2467 citing authors

#	Article	IF	Citations
1	Examination of Radiation Belt Dynamics During Substorm Clusters: Activity Drivers and Dependencies of Trapped Flux Enhancements. Journal of Geophysical Research: Space Physics, 2022, 127, .	0.8	7
2	Thank You to Our 2021 Peer Reviewers. Space Weather, 2022, 20, .	1.3	0
3	Proâ€•L * â€•A Probabilistic L * Mapping Tool for Ground Observations. Space Weather, 2021, 19, e2020SW002602.	1.3	3
4	Numerical Simulations of the Geospace Response to the Arrival of an Idealized Perfect Interplanetary Coronal Mass Ejection. Space Weather, 2021, 19, e2020SW002489.	1.3	20
5	Determining Ionizing Doses in Medium Earth Orbits Using Long-Term GPS Particle Measurements. , 2021, , .		2
6	Thank You to Our 2020 Reviewers. Space Weather, 2021, 19, e2021SW002756.	1.3	0
7	Evidence of Subâ€MeV EMICâ€Driven Trapped Electron Flux Dropouts From GPS Observations. Geophysical Research Letters, 2021, 48, e2021GL092664.	1.5	5
8	On the Formation of Phantom Electron Phase Space Density Peaks in Single Spacecraft Radiation Belt Data. Geophysical Research Letters, 2021, 48, e2020GL092351.	1.5	9
9	Open source vector field topology. SoftwareX, 2021, 15, 100787.	1.2	3
10	Relaxation Based Modeling of GMD Induced Cascading Failures in PowerModelsGMD.jl. , 2021, , .		1
11	Machineâ€Learning Research in the Space Weather Journal: Prospects, Scope, and Limitations. Space Weather, 2021, 19, .	1.3	2
12	Topological Segmentation and Tracking for Space Weather Modeling. , 2021, , .		0
13	Challenges and Opportunities in Magnetospheric Space Weather Prediction. Space Weather, 2020, 18, e2018SW002108.	1.3	27
14	GPS Constellation Energetic Particle Measurements. , 2020, , .		4
15	Defining Radiation Belt Enhancement Events Based on Probability Distributions. Space Weather, 2020, 18, e2020SW002528.	1.3	4
16	Probabilistic prediction of geomagnetic storms and theK_pindex. Journal of Space Weather and Space Climate, 2020, 10, 36.	1.1	25
17	Medium Energy Electron Flux in Earth's Outer Radiation Belt (MERLIN): A Machine Learning Model. Space Weather, 2020, 18, e2020SW002532.	1.3	31
18	Using Multiple Signatures to Improve Accuracy of Substorm Identification. Journal of Geophysical Research: Space Physics, 2020, 125, e2019JA027559.	0.8	12

#	Article	IF	Citations
19	Rapid Outer Radiation Belt Flux Dropouts and Fast Acceleration During the March 2015 and 2013 Storms: The Role of Ultraâ€Low Frequency Wave Transport From a Dynamic Outer Boundary. Journal of Geophysical Research: Space Physics, 2020, 125, e2019JA027179.	0.8	30
20	Angular scattering of protons through ultrathin graphene foils: Application for time-of-flight instrumentation. Review of Scientific Instruments, 2020, 91, 033302.	0.6	2
21	Global Prompt Proton Sensor Network: Monitoring Solar Energetic Protons Based on GPS Satellite Constellation. Journal of Geophysical Research: Space Physics, 2020, 125, e2019JA027679.	0.8	2
22	Quantitative Assessment of Radiation Belt Modeling. Journal of Geophysical Research: Space Physics, 2019, 124, 898-904.	0.8	11
23	Modeling the Magnetopause Shadowing Loss During the June 2015 Dropout Event. Geophysical Research Letters, 2019, 46, 9388-9396.	1.5	37
24	The March 2015 Superstorm Revisited: Phase Space Density Profiles and Fast ULF Wave Diffusive Transport. Journal of Geophysical Research: Space Physics, 2019, 124, 1143-1156.	0.8	21
25	Improved Simulations of The Inner Magnetosphere During High Geomagnetic Activity With the RAMâ€SCB Model. Journal of Geophysical Research: Space Physics, 2019, 124, 4233-4248.	0.8	8
26	On the Relative Strength of Electric and Magnetic ULF Wave Radial Diffusion During the March 2015 Geomagnetic Storm. Journal of Geophysical Research: Space Physics, 2019, 124, 2569-2587.	0.8	23
27	Application usability levels: a framework for tracking project product progress. Journal of Space Weather and Space Climate, 2019, 9, A34.	1.1	13
28	SAPSâ€Associated Explosive Brightening on the Duskside: A New Type of Onsetâ€Like Disturbance. Journal of Geophysical Research: Space Physics, 2018, 123, 197-210.	0.8	10
29	Reply to 'The dynamics of Van Allen belts revisited'. Nature Physics, 2018, 14, 103-104.	6.5	14
30	Measures of Model Performance Based On the Log Accuracy Ratio. Space Weather, 2018, 16, 69-88.	1.3	168
31	Model Evaluation Guidelines for Geomagnetic Index Predictions. Space Weather, 2018, 16, 2079-2102.	1.3	62
32	Snakes on a Spaceshipâ€"An Overview of Python in Heliophysics. Journal of Geophysical Research: Space Physics, 2018, 123, 10,384.	0.8	28
33	Cross Calibration of the GPS Constellation CXD Proton Data With GOES EPS. Space Weather, 2018, 16, 273-288.	1.3	9
34	Perturbed Input Ensemble Modeling With the Space Weather Modeling Framework. Space Weather, 2018, 16, 1330-1347.	1.3	32
35	Calculation of Last Closed Drift Shells for the 2013 GEM Radiation Belt Challenge Events. Journal of Geophysical Research: Space Physics, 2018, 123, 9597-9611.	0.8	27
36	Recommendations for Nextâ€Generation Ground Magnetic Perturbation Validation. Space Weather, 2018, 16, 1912-1920.	1.3	27

#	Article	IF	Citations
37	On the Role of Last Closed Drift Shell Dynamics in Driving Fast Losses and Van Allen Radiation Belt Extinction. Journal of Geophysical Research: Space Physics, 2018, 123, 3692-3703.	0.8	40
38	Energetic Particle Data From the Global Positioning System Constellation. Space Weather, 2017, 15, 283-289.	1.3	46
39	Simultaneous eventâ€specific estimates of transport, loss, and source rates for relativistic outer radiation belt electrons. Journal of Geophysical Research: Space Physics, 2017, 122, 3354-3373.	0.8	18
40	Improving Empirical Magnetic Field Models by Fitting to In Situ Data Using an Optimized Parameter Approach. Space Weather, 2017, 15, 1628-1648.	1.3	18
41	SWMF Global Magnetosphere Simulations of January 2005: Geomagnetic Indices and Crossâ€Polar Cap Potential. Space Weather, 2017, 15, 1567-1587.	1.3	44
42	Understanding the Mechanisms of Radiation Belt Dropouts Observed by Van Allen Probes. Journal of Geophysical Research: Space Physics, 2017, 122, 9858-9879.	0.8	83
43	The Global Positioning System constellation as a space weather monitor: Comparison of electron measurements with Van Allen Probes data. Space Weather, 2016, 14, 76-92.	1.3	48
44	RAMâ€SCB simulations of electron transport and plasma wave scattering during the October 2012 â€œdoubleâ€dipâ€•storm. Journal of Geophysical Research: Space Physics, 2016, 121, 8712-8727.	0.8	41
45	Dependence of EMIC wave parameters during quiet, geomagnetic storm, and geomagnetic storm phase times. Journal of Geophysical Research: Space Physics, 2016, 121, 6277-6291.	0.8	36
46	The latitudinal variation of geoelectromagnetic disturbances during large (Dstâ‰ˆâ^'100ÂnT) geomagnetic storms. Space Weather, 2016, 14, 668-681.	1.3	23
47	Hiss or equatorial noise? Ambiguities in analyzing suprathermal ion plasma wave resonance. Journal of Geophysical Research: Space Physics, 2016, 121, 9619-9631.	0.8	3
48	Modes of highâ€latitude auroral conductance variability derived from DMSP energetic electron precipitation observations: Empirical orthogonal function analysis. Journal of Geophysical Research: Space Physics, 2015, 120, 11,013.	0.8	37
49	EMIC waves and plasmaspheric and plume density: CRRES results. Journal of Geophysical Research: Space Physics, 2015, 120, 1974-1992.	0.8	42
50	Application and testing of the L[*] neural network with the selfâ€consistent magnetic field model of RAMâ€SCB. Journal of Geophysical Research: Space Physics, 2014, 119, 1683-1692.	0.8	9
51	On the cause and extent of outer radiation belt losses during the 30 September 2012 dropout event. Journal of Geophysical Research: Space Physics, 2014, 119, 1530-1540.	0.8	110
52	Competing source and loss mechanisms due to waveâ€particle interactions in Earth's outer radiation belt during the 30 September to 3 October 2012 geomagnetic storm. Journal of Geophysical Research: Space Physics, 2014, 119, 1960-1979.	0.8	103
53	REPAD: An empirical model of pitch angle distributions for energetic electrons in the Earth's outer radiation belt. Journal of Geophysical Research: Space Physics, 2014, 119, 1693-1708.	0.8	37
54	Dynamic linear models for forecasting of radiation belt electrons and limitations on physical interpretation of predictive models. Space Weather, 2014, 12, 426-446.	1.3	13

#	Article	IF	Citations
55	Eventâ€specific chorus wave and electron seed population models in DREAM3D using the Van Allen Probes. Geophysical Research Letters, 2014, 41, 1359-1366.	1.5	136
56	Electron Acceleration in the Heart of the Van Allen Radiation Belts. Science, 2013, 341, 991-994.	6.0	463
57	Phase Space Density matching of relativistic electrons using the Van Allen Probes: REPT results. Geophysical Research Letters, 2013, 40, 4798-4802.	1.5	27
58	Rapid Radiation Belt Losses Occurring During High-Speed Solar Wind Stream-Driven Storms: Importance of Energetic Electron Precipitation. Geophysical Monograph Series, 2013, , 213-224.	0.1	21
59	AE9, AP9 and SPM: New Models for Specifying the Trapped Energetic Particle and Space Plasma Environment. Space Science Reviews, 2013, 179, 579-615.	3.7	217
60	Longâ€term variations in solar wind velocity and radiation belt electrons. Journal of Geophysical Research: Space Physics, 2013, 118, 1040-1048.	0.8	34
61	Quantifying the effect of magnetopause shadowing on electron radiation belt dropouts. Annales Geophysicae, 2013, 31, 1929-1939.	0.6	32
62	Association of cusp energetic ions with geomagnetic storms and substorms. Annales Geophysicae, 2012, 30, 1633-1643.	0.6	2
63	Dynamic Radiation Environment Assimilation Model: DREAM. Space Weather, 2012, 10, .	1.3	74
64	On the relationship between relativistic electron flux and solar wind velocity: Paulikas and Blake revisited. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	148
65	Geospace effects of high-speed solar wind streams. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2010, 466, 3275-3277.	1.0	2
66	Dropouts of the outer electron radiation belt in response to solar wind stream interfaces: global positioning system observations. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2010, 466, 3329-3350.	1.0	88
67	Storm time observations of electromagnetic ion cyclotron waves at geosynchronous orbit: GOES results. Journal of Geophysical Research, 2010, 115, .	3.3	102
68	Comment on â€œInvestigation of the period of sawtooth eventsâ€•by X. Cai and C. R. Clauer. Journal of Geophysical Research, 2010, 115, .	3.3	3
69	A rapid, global and prolonged electron radiation belt dropout observed with the Global Positioning System constellation. Geophysical Research Letters, 2010, 37, .	1.5	67
70	EMIC wave activity during geomagnetic storm and nonstorm periods: CRRES results. Journal of Geophysical Research, 2010, 115, .	3.3	122
71	SpacePy - A Python-based Library of Tools for the Space Sciences. , 2010, , .		36
72	On the triggering of auroral substorms by northward turnings of the interplanetary magnetic field. Annales Geophysicae, 2009, 27, 3559-3570.	0.6	28

#	Article	IF	Citations
73	A Multispacecraft Analysis of a Small-Scale Transient Entrained by Solar Wind Streams. Solar Physics, 2009, 256, 307-326.	1.0	93
74	Introduction to Special Issue on high speed solar wind streams and geospace interactions (HSSâ€“GI). Journal of Atmospheric and Solar-Terrestrial Physics, 2009, 71, 1011-1013.	0.6	13
75	Recurrent substorm activity during the passage of a corotating interaction region. Journal of Atmospheric and Solar-Terrestrial Physics, 2009, 71, 1073-1081.	0.6	19
76	No evidence for externally triggered substorms based on superposed epoch analysis of IMF B_z. Geophysical Research Letters, 2009, 36, .	1.5	42
77	Multipoint observations of Pc1â€2 waves in the afternoon sector. Journal of Geophysical Research, 2009, 114, .	3.3	57
78	High-Speed Solar Wind Streams: A Call for Key Research. Eos, 2008, 89, 62.	0.1	22
79	On the association between northward turnings of the interplanetary magnetic field and substorm onsets. Geophysical Research Letters, 2007, 34, .	1.5	63
80	A comparison of the probability distribution of observed substorm magnitude with that predicted by a minimal substorm model. Annales Geophysicae, 2007, 25, 2427-2437.	0.6	10
81	Modeling the observed proton aurora and ionospheric convection responses to changes in the IMF clock angle: 2. Persistence of ionospheric convection. Journal of Geophysical Research, 2006, 111, .	3.3	15
82	A numerical model of the ionospheric signatures of time-varying magnetic reconnection: III. Quasi-instantaneous convection responses in the Cowley-Lockwood paradigm. Annales Geophysicae, 2006, 24, 961-972.	0.6	15
83	First tomographic image of ionospheric outflows. Geophysical Research Letters, 2006, 33, .	1.5	13
84	A numerical model of the ionospheric signatures of time-varying magnetic reconnection: II. Measuring expansions in the ionospheric flow response. Annales Geophysicae, 2005, 23, 2501-2510.	0.6	9
85	Modeling the observed proton aurora and ionospheric convection responses to changes in the IMF clock angle: 1. Persistence of cusp proton aurora. Journal of Geophysical Research, 2005, 110, .	3.3	5
86	A minimal substorm model that explains the observed statistical distribution of times between substorms. Geophysical Research Letters, 2004, 31, n/a-n/a.	1.5	64
87	A numerical model of the ionospheric signatures of time-varying magneticreconnection: I. ionospheric convection. Annales Geophysicae, 2004, 22, 73-91.	0.6	41
88	The dependence of cusp ion signatures on the reconnection rate. Annales Geophysicae, 2003, 21, 947-953.	0.6	6
89	IMF control of cusp proton emission intensity and dayside convection: implications for component and anti-parallel reconnection. Annales Geophysicae, 2003, 21, 955-982.	0.6	31
90	Coordinated Cluster, ground-based instrumentation and low-altitude satellite observations of transient poleward-moving events in the ionosphere and in the tail lobe. Annales Geophysicae, 2001, 19, 1589-1612.	0.6	32

#	Article	IF	Citations
91	Coordinated Cluster and ground-based instrument observations of transient changes in the magnetopause boundary layer during an interval of predominantly northward IMF: relation to reconnection pulses and FTE signatures. Annales Geophysicae, 2001, 19, 1613-1640.	0.6	30
92	Outer Radiation Belt Flux Dropouts: Current Understanding and Unresolved Questions. Geophysical Monograph Series, 0, , 195-212.	0.1	56
93	Classification of Pc1-2 Electromagnetic Ion Cyclotron Waves at Geosynchronous Orbit. Geophysical Monograph Series, 0, , 53-68.	0.1	7