

# Stephen B Mende

## List of Publications by Year in descending order

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132  
papers

6,715  
citations

61984  
43  
h-index

66911  
78  
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141  
all docs

141  
docs citations

141  
times ranked

3020  
citing authors

#	ARTICLE	IF	CITATIONS
1	Control of equatorial ionospheric morphology by atmospheric tides. Geophysical Research Letters, 2006, 33, .	4.0	551
2	Tail Reconnection Triggering Substorm Onset. Science, 2008, 321, 931-935.	12.6	551
3	The THEMIS Array of Ground-based Observatories for the Study of Auroral Substorms. Space Science Reviews, 2008, 141, 357-387.	8.1	274
4	Longitudinal structure of the equatorial anomaly in the nighttime ionosphere observed by IMAGE/FUV. Journal of Geophysical Research, 2005, 110, .	3.3	267
5	Identifying the Driver of Pulsating Aurora. Science, 2010, 330, 81-84.	12.6	249
6	Substorm onset observations by IMAGE-FUV. Journal of Geophysical Research, 2004, 109, .	3.3	246
7	Global distributions and occurrence rates of transient luminous events. Journal of Geophysical Research, 2008, 113, .	3.3	186
8	The Ionospheric Connection Explorer Mission: Mission Goals and Design. Space Science Reviews, 2018, 214, 1.	8.1	152
9	The THEMIS all-sky imaging array's system design and initial results from the prototype imager. Journal of Atmospheric and Solar-Terrestrial Physics, 2006, 68, 1472-1487.	1.6	139
10	O/N <sub>2</sub> changes during 14 October 2002 storms: IMAGE SI-13 and TIMED/GUVI observations. Journal of Geophysical Research, 2004, 109, .	3.3	135
11	Continuous magnetic reconnection at Earth's magnetopause. Nature, 2003, 426, 533-537.	27.8	127
12	Intensification of preexisting auroral arc at substorm expansion phase onset: Wave-like disruption during the first tens of seconds. Geophysical Research Letters, 2008, 35, .	4.0	126
13	Airborne observations of auroral precipitation patterns. Journal of Geophysical Research, 1971, 76, 1746-1755.	3.3	120
14	Michelson Interferometer for Global High-Resolution Thermospheric Imaging (MIGHTI): Instrument Design and Calibration. Space Science Reviews, 2017, 212, 553-584.	8.1	116
15	Proton aurora in the cusp. Journal of Geophysical Research, 2002, 107, SMP 2-1.	3.3	115
16	Sprite spectra; N <sub>2</sub> PG band identification. Geophysical Research Letters, 1995, 22, 2633-2636.	4.0	108
17	Cusp aurora dependence on interplanetary magnetic field B <sub>z</sub> . Journal of Geophysical Research, 2002, 107, SIA 6-1.	3.3	105
18	FAST and IMAGE-FUV observations of a substorm onset. Journal of Geophysical Research, 2003, 108, .	3.3	104

#	ARTICLE	IF	CITATIONS
19	Timing of magnetic reconnection initiation during a global magnetospheric substorm onset. <i>Geophysical Research Letters</i> , 2002, 29, 43-1-43-4.	4.0	102
20	Plasma Injection at Synchronous Orbit and Spatial and Temporal Auroral Morphology. <i>Journal of Geophysical Research</i> , 1976, 81, 2805-2824.	3.3	100
21	Dregion ionization by lightning-induced electromagnetic pulses. <i>Journal of Geophysical Research</i> , 2005, 110, .	3.3	100
22	Multievent study of the correlation between pulsating aurora and whistler mode chorus emissions. <i>Journal of Geophysical Research</i> , 2011, 116, n/a-n/a.	3.3	85
23	Systematics in auroral energy spectra. <i>Journal of Geophysical Research</i> , 1972, 77, 660-673.	3.3	75
24	Discharge processes, electric field, and electron energy in ISUAL-recorded gigantic jets. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	73
25	Impacts of the January 2022 Tonga Volcanic Eruption on the Ionospheric Dynamo: ICON-MIGHTI and Swarm Observations of Extreme Neutral Winds and Currents. <i>Geophysical Research Letters</i> , 2022, 49, .	4.0	67
26	Relations between multiple auroral streamers, pre-onset thin arc formation, and substorm auroral onset. <i>Journal of Geophysical Research</i> , 2011, 116, n/a-n/a.	3.3	64
27	Near-Earth initiation of a terrestrial substorm. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	60
28	Modeling elves observed by FORMOSAT-2 satellite. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	59
29	Halos generated by negative cloud-to-ground lightning. <i>Geophysical Research Letters</i> , 2007, 34, .	4.0	58
30	Timing and localization of ionospheric signatures associated with substorm expansion phase onset. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	58
31	Comparison of results from sprite streamer modeling with spectrophotometric measurements by ISUAL instrument on FORMOSAT-2 satellite. <i>Geophysical Research Letters</i> , 2006, 33, n/a-n/a.	4.0	57
32	Statistical properties of substorm auroral onset beads/rays. <i>Journal of Geophysical Research: Space Physics</i> , 2016, 121, 8661-8676.	2.4	54
33	Statistical study of high-latitude plasma flow during magnetospheric substorms. <i>Annales Geophysicae</i> , 2004, 22, 3607-3624.	1.6	53
34	Monochromatic all-sky observations and auroral precipitation patterns. <i>Journal of Geophysical Research</i> , 1976, 81, 3771-3780.	3.3	52
35	Radiative emission and energy deposition in transient luminous events. <i>Journal Physics D: Applied Physics</i> , 2008, 41, 234014.	2.8	51
36	Preonset time sequence of auroral substorms: Coordinated observations by all-sky imagers, satellites, and radars. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	51

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37	Substorm triggering by poleward boundary intensification and related equatorward propagation. Journal of Geophysical Research, 2011, 116, .	3.3	50
38	Nighttime ionospheric electrodynamics associated with substorms: PFISR and THEMIS ASI observations. Journal of Geophysical Research, 2009, 114, .	3.3	49
39	Sudden solar wind dynamic pressure enhancements and dayside detached auroras: IMAGE and DMSP observations. Journal of Geophysical Research, 2003, 108, COA 2-1.	3.3	48
40	Instrument for the monochromatic observation of all sky auroral images. Applied Optics, 1977, 16, 1691.	2.1	47
41	Properties of 6300Å... auroral emissions at South Pole. Journal of Geophysical Research, 1989, 94, 1402-1416.	3.3	46
42	Storm-substorm relationship: Variations of the hydrogen and oxygen energetic neutral atom intensities during storm-time substorms. Journal of Geophysical Research, 2005, 110, .	3.3	46
43	Coordinated observations of the magnetosphere: The development of a substorm. Journal of Geophysical Research, 1972, 77, 4682-4699.	3.3	45
44	Magnetic impulses and associated optical signatures in the dayside aurora. Geophysical Research Letters, 1990, 17, 131-134.	4.0	42
45	IMAGE FUV and in situ FAST particle observations of substorm aurorae. Journal of Geophysical Research, 2003, 108, .	3.3	42
46	Negative ionospheric storms seen by the IMAGE FUV instrument. Journal of Geophysical Research, 2003, 108, .	3.3	42
47	Proton aurora in the cusp during southward IMF. Journal of Geophysical Research, 2003, 108, .	3.3	42
48	Global observations of proton and electron auroras in a substorm. Geophysical Research Letters, 2001, 28, 1139-1142.	4.0	40
49	Total electron and proton energy input during auroral substorms: Remote sensing with IMAGE-FUV. Journal of Geophysical Research, 2002, 107, SMP 15-1-SMP 15-12.	3.3	40
50	Electric fields and electron energies in sprites and temporal evolutions of lightning charge moment. Journal Physics D: Applied Physics, 2008, 41, 234010.	2.8	40
51	Substorm onset and expansion phase intensification precursors seen in polar cap patches and arcs. Journal of Geophysical Research: Space Physics, 2013, 118, 2034-2042.	2.4	40
52	The Far Ultra-Violet Imager on the Icon Mission. Space Science Reviews, 2017, 212, 655-696.	8.1	39
53	ISUAL far-ultraviolet events, elves, and lightning current. Journal of Geophysical Research, 2010, 115, .	3.3	38
54	Statistical behavior of proton and electron auroras during substorms. Journal of Geophysical Research, 2003, 108, .	3.3	37

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55	Dynamics of global scale electron and proton precipitation induced by a solar wind pressure pulse. <i>Geophysical Research Letters</i> , 2003, 30, .	4.0	35
56	Simultaneous radio and satellite optical measurements of high-altitude sprite current and lightning continuing current. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	35
57	Subauroral Green STEVE Arcs: Evidence for Low-Energy Excitation. <i>Geophysical Research Letters</i> , 2019, 46, 14256-14262.	4.0	32
58	Solar wind control of auroral substorm onset locations observed with the IMAGE-FUV imagers. <i>Journal of Geophysical Research</i> , 2004, 109, .	3.3	30
59	Assessment of sprite initiating electric fields and quenching altitude of $\alpha_1$ state of $N_2$ using sprite streamer modeling and ISUAL spectrophotometric measurements. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	30
60	Estimation of magnetic field mapping accuracy using the pulsating aurora-chorus connection. <i>Geophysical Research Letters</i> , 2011, 38, n/a-n/a.	4.0	29
61	Global view of the nighttime low-latitude ionosphere by the IMAGE/FUV 135.6 nm observations. <i>Geophysical Research Letters</i> , 2003, 30, n/a-n/a.	4.0	26
62	Simultaneous observations of equatorial plasma depletion by IMAGE and ROCSAT-1 satellites. <i>Journal of Geophysical Research</i> , 2005, 110, .	3.3	26
63	Multistation observations of auroras: Polar cap substorms. <i>Journal of Geophysical Research</i> , 1999, 104, 2333-2342.	3.3	25
64	Evolution of nightside subauroral proton aurora caused by transient plasma sheet flows. <i>Journal of Geophysical Research: Space Physics</i> , 2014, 119, 5295-5304.	2.4	25
65	Coordinated ionospheric observations indicating coupling between preonset flow bursts and waves that lead to substorm onset. <i>Journal of Geophysical Research: Space Physics</i> , 2014, 119, 3333-3344.	2.4	25
66	Regulation of ionospheric plasma velocities by thermospheric winds. <i>Nature Geoscience</i> , 2021, 14, 893-898.	12.9	25
67	Southern Hemisphere poleward moving auroral forms. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	24
68	Identification of substorm onset location and preonset sequence using Reimei, THEMIS GBO, PFISR, and Geotail. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	24
69	The Imager for Sprites and Upper Atmospheric Lightning (ISUAL). <i>Journal of Geophysical Research: Space Physics</i> , 2016, 121, 8134-8145.	2.4	23
70	Multipoint in situ and ground-based observations during auroral intensifications. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	22
71	Statistical study of substorm timing sequence. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	22
72	A Mechanism for the STEVE Continuum Emission. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL087102.	4.0	22

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73	Spectroscopic determination of the characteristics of precipitating auroral particles. Journal of Geophysical Research, 1975, 80, 3211-3216.	3.3	21
74	Determination of substorm onset timing and location using the THEMIS ground based observatories. Geophysical Research Letters, 2007, 34, .	4.0	21
75	THEMIS Ground Based Observatory System Design. Space Science Reviews, 2008, 141, 213-233.	8.1	21
76	Longitudinal development of a substorm brightening arc. Annales Geophysicae, 2009, 27, 1935-1940.	1.6	20
77	Inferring Nighttime Ionospheric Parameters with the Far Ultraviolet Imager Onboard the Ionospheric Connection Explorer. Space Science Reviews, 2018, 214, 1.	8.1	20
78	Daytime O/N2 Retrieval Algorithm for the Ionospheric Connection Explorer (ICON). Space Science Reviews, 2018, 214, 1.	8.1	19
79	Morphology and seasonal variations of global auroral proton precipitation observed by IMAGE-FUV. Journal of Geophysical Research, 2004, 109, .	3.3	17
80	Controlling synopticâ€scale factors for the distribution of transient luminous events. Journal of Geophysical Research, 2010, 115, .	3.3	17
81	Ionization emissions associated with N <sub>2</sub> <sup>+</sup> 1N band in halos without visible sprite streamers. Journal of Geophysical Research: Space Physics, 2013, 118, 5317-5326.	2.4	17
82	The THEMIS Array of Ground-based Observatories for the Study of Auroral Substorms. , 2009, , 357-387.		17
83	On the Global Occurrence and Impacts of Transient Luminous Events (TLEs). , 2009, , .		16
84	Tail reconnection region versus auroral activity inferred from conjugate ARTEMIS plasma sheet flow and auroral observations. Journal of Geophysical Research: Space Physics, 2013, 118, 5758-5766.	2.4	16
85	Investigation of triggering of poleward moving auroral forms using satelliteâ€mager coordinated observations. Journal of Geophysical Research: Space Physics, 2016, 121, 10,929.	2.4	15
86	Source of the dayside cusp aurora. Journal of Geophysical Research: Space Physics, 2016, 121, 7728-7738.	2.4	15
87	Mesoscale <i>F</i> Region Neutral Winds Associated With Quasiâ€steady and Transient Nightside Auroral Forms. Journal of Geophysical Research: Space Physics, 2018, 123, 7968-7984.	2.4	15
88	Relation of substorm preâ€onset arc to largeâ€scale fieldâ€aligned current distribution. Geophysical Research Letters, 2012, 39, .	4.0	14
89	Identifying the magnetotail source region leading to preonset poleward boundary intensifications. Journal of Geophysical Research: Space Physics, 2013, 118, 4335-4340.	2.4	13
90	Ground and satellite observations of substorm onset arcs. Journal of Geophysical Research, 2005, 110, .	3.3	12

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91	Analysis of close conjunctions between dayside polar cap airglow patches and flow channels by all-sky imager and DMSP. <i>Earth, Planets and Space</i> , 2016, 68, .	2.5	12
92	Identifying the occurrence of lightning and transient luminous events by nadir spectrophotometric observation. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 2016, 145, 85-97.	1.6	12
93	Ionization and electric field properties of auroral arcs during magnetic quiescence. <i>Journal of Geophysical Research</i> , 1990, 95, 21111-21121.	3.3	11
94	Observations of Earth space by self-powered stations in Antarctica. <i>Review of Scientific Instruments</i> , 2009, 80, 124501.	1.3	11
95	Reply to comment by Harald U. Frey on "Substorm triggering by new plasma intrusion: THEMIS all-sky imager observations". <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	11
96	Full kinetic elve model simulations and their comparisons with the ISUAL observed events. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	11
97	Color Ratios of Subauroral (STEVE) Arcs. <i>Journal of Geophysical Research: Space Physics</i> , 2019, 124, 5945-5955.	2.4	11
98	First ICON FUV Nighttime NmF2 and hmF2 Comparison to Ground and Space-Based Measurements. <i>Journal of Geophysical Research: Space Physics</i> , 2021, 126, e2021JA029360.	2.4	11
99	The 762 nm emissions of sprites. <i>Journal of Geophysical Research</i> , 2011, 116, n/a-n/a.	3.3	10
100	Observing the magnetosphere through global auroral imaging: 2. Observing techniques. <i>Journal of Geophysical Research: Space Physics</i> , 2016, 121, 10,638.	2.4	10
101	Dayside auroral dynamics: South Pole - AMPTE/CCE observations. <i>Journal of Geophysical Research</i> , 1998, 103, 6891-6897.	3.3	9
102	Coordinated observation of the dayside magnetospheric entry and exit of the THEMIS satellites with ground-based auroral imaging in Antarctica. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	9
103	Topside Plasma Flows in the Equatorial Ionosphere and Their Relationships to F Region Winds Near 250 Åkm. <i>Journal of Geophysical Research: Space Physics</i> , 2022, 127, .	2.4	9
104	<title>Optical design of the FUV spectrographic imager for the IMAGE mission</title>. , 1997, , .		8
105	Trapped and precipitating protons in the inner magnetosphere as seen by IMAGE. <i>Journal of Geophysical Research</i> , 2004, 109, .	3.3	8
106	Observing the magnetosphere through global auroral imaging: 1. Observables. <i>Journal of Geophysical Research: Space Physics</i> , 2016, 121, 10,623.	2.4	8
107	Substorm effects in auroral spectra. <i>Journal of Geophysical Research</i> , 1973, 78, 7515-7520.	3.3	7
108	Combined in situ and remote sensing of ionospheric ion outflow. <i>Geophysical Research Letters</i> , 2006, 33, .	4.0	7

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109	Conjugate observations of ENA signals in the high-latitude cusp and proton auroral spot in the low-latitude cusp with IMAGE spacecraft. Geophysical Research Letters, 2008, 35, .	4.0	7
110	Azimuthal auroral expansion associated with fast flows in the near-Earth plasma sheet: Coordinated observations of the THEMIS all-sky imagers and multiple spacecraft. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	7
111	The leading role of atomic oxygen in the collocation of elves and hydroxyl nightglow in the low-latitude mesosphere. Journal of Geophysical Research: Space Physics, 2017, 122, 5550-5567.	2.4	7
112	First Results From the Retrieved Column O/N <sup>2</sup> Ratio From the Ionospheric Connection Explorer (ICON): Evidence of the Impacts of Nonmigrating Tides. Journal of Geophysical Research: Space Physics, 2021, 126, e2021JA029575.	2.4	7
113	Statistics of the longitudinal splitting of proton aurora during substorms. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	6
114	Time-Delay Integration Imaging with ICON's Far-Ultraviolet Imager. Space Science Reviews, 2017, 212, 715-730.	8.1	5
115	Effects of Substorms on High-Latitude Upper Thermospheric Winds. Journal of Geophysical Research: Space Physics, 2021, 126, e2020JA028193.	2.4	5
116	Conjugate Photoelectron Energy Spectra Derived From Coincident FUV and Radio Measurements. Geophysical Research Letters, 2021, 48, .	4.0	5
117	Plasma pressure generated auroral current system: A case study. Geophysical Research Letters, 2012, 39, .	4.0	4
118	Daily Variability in the Terrestrial UV Airglow. Atmosphere, 2020, 11, 1046.	2.3	4
119	Effects of Subauroral Polarization Streams on the Upper Thermospheric Winds During Nonstorm Time. Journal of Geophysical Research: Space Physics, 2022, 127, .	2.4	4
120	<title>Optical calibration of the FUV spectrographic imager for the IMAGE mission</title>. , 1999, 3765, 508.		3
121	Proton auroral intensifications and injections at synchronous altitude. Geophysical Research Letters, 2006, 33, .	4.0	3
122	Optical design and optical properties of a VUV spectrographic imager for ICON mission. Proceedings of SPIE, 2016, , .	0.8	3
123	Identifying the evolution of Southern Hemisphere poleward moving auroral forms (PMAFs) in the context of plasma convection and magnetic reconnection. Journal of Geophysical Research: Space Physics, 2017, 122, 4037-4050.	2.4	3
124	<title>Alignment and performances of the FUV Spectrographic Imager for the IMAGE mission</title>. , 1998, , .		2
125	Reply to comment by Rae et al. on "Formation of substorm Pi2: A coherent response to auroral streamers and currents". Journal of Geophysical Research: Space Physics, 2013, 118, 3497-3499.	2.4	2
126	Calibration and testing of wide-field UV instruments. Journal of Geophysical Research: Space Physics, 2017, 122, 6907-6921.	2.4	2



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127	Simultaneous Observations of Poleward-Moving Auroral Forms at the Equatorward and Poleward Boundaries of the Auroral Oval in Antarctica. Journal of Geophysical Research: Space Physics, 2020, 125, e2019JA027646.	2.4	2
128	Experimental Validation of N2 Emission Ratios in Altitude Profiles of Observed Sprites. Frontiers in Earth Science, 2021, 9, .	1.8	2
129	Auroral imaging from a spinning satellite. Review of Scientific Instruments, 2011, 82, 013102.	1.3	1
130	Alignment and calibration of the ICON-FUV instrument: development of a vacuum UV facility. , 2016, , .		1
131	VUV optical ground system equipment and its application to the ICON FUV flight grating characterization and selection. Proceedings of SPIE, 2016, , .	0.8	1
132	ISUAL multi-band observations of elves. , 2011, , .		0