Jeff Thayer

List of Publications by Year in descending order

114 papers	3,293 citations	145106 33 h-index	214428 50 g-index
120 all docs	120 docs citations	120 times ranked	2666 citing authors

#	Article	IF	Citations
1	Toward Accurate Physicsâ€Based Specifications of Neutral Density Using GNSSâ€Enabled Small Satellites. Space Weather, 2021, 19, e2021SW002736.	1.3	5
2	Flying Through Uncertainty. Space Weather, 2020, 18, e2019SW002373.	1.3	22
3	Radiative Influence of Horizontally Oriented Ice Crystals over Summit, Greenland. Journal of Geophysical Research D: Atmospheres, 2019, 124, 12141-12156.	1.2	4
4	Nonlinear target count rate estimation in single-photon lidar due to first photon bias. Optics Letters, 2019, 44, 1249.	1.7	10
5	Properties of horizontally oriented ice crystals observed by polarization lidar over summit, Greenland. EPJ Web of Conferences, 2018, 176, 05007.	0.1	1
6	Multi-sensor measurements of mixed-phase clouds above Greenland. EPJ Web of Conferences, 2018, 176, 08006.	0.1	0
7	Improved cloud-phase determination of low-level liquid and mixed-phase clouds by enhanced polarimetric lidar. Atmospheric Measurement Techniques, 2018, 11, 835-859.	1.2	16
8	High resolution photon time-tagging lidar for atmospheric point cloud generation. Optics Express, 2018, 26, 26030.	1.7	19
9	Remote characterization of turbid water using a novel Lidar technique. , 2018, , .		0
10	Statistical analysis of spatial and temporal variations in atmospheric electric fields from a regional array of field mills. Journal of Geophysical Research D: Atmospheres, 2017, 122, 1158-1174.	1.2	22
11	The Great Cold Spot in Jupiter's upper atmosphere. Geophysical Research Letters, 2017, 44, 3000-3008.	1.5	7
12	Monte Carlo method for the analysis of laser safety for a high-powered lidar system under different atmospheric conditions. Journal of Laser Applications, 2017, 29, 022002.	0.8	4
13	The nonâ€“storm time corrugated upper thermosphere: What is beyond MSIS?. Space Weather, 2017, 15, 746-760.	1.3	14
14	MAVEN Observations of Ionospheric Irregularities at Mars. Geophysical Research Letters, 2017, 44, 10,845.	1.5	16
15	An Autonomous Polarized Raman Lidar System Designed for Summit Camp, Greenland. EPJ Web of Conferences, 2016, 119, 16003.	0.1	0
16	New insights into the complex interplay between drag forces and its thermospheric consequences. Journal of Geophysical Research: Space Physics, 2016, 121, 10,417.	0.8	21
17	A global electric circuit model within a community climate model. Journal of Geophysical Research D: Atmospheres, 2015, 120, 12,054.	1.2	30
18	Explaining solar cycle effects on composition as it relates to the winter anomaly. Journal of Geophysical Research: Space Physics, 2015, 120, 5890-5898.	0.8	30

#	Article	IF	Citations
19	Modeling and mechanisms of polar winter upper stratosphere/lower mesosphere disturbances in WACCM. Journal of Geophysical Research D: Atmospheres, 2015, 120, 7635-7647.	1.2	4
20	A selfâ€consistent model of helium in the thermosphere. Journal of Geophysical Research: Space Physics, 2015, 120, 6884-6900.	0.8	31
21	Formation of the equatorial thermosphere anomaly trough: Local time and solar cycle variations. Journal of Geophysical Research: Space Physics, 2014, 119, 10,456.	0.8	12
22	Ranging through Shallow Semitransparent Media with Polarization Lidar. Journal of Atmospheric and Oceanic Technology, 2014, 31, 681-697.	0.5	14
23	Ionized Plasma and Neutral Gas Coupling in the Sunâ€™s Chromosphere and Earthâ€™s Ionosphere/Thermosphere. Space Science Reviews, 2014, 184, 107-172.	3.7	58
24	Altitude variations in the thermosphere mass density response to geomagnetic activity during the recent solar minimum. Journal of Geophysical Research: Space Physics, 2014, 119, 2160-2177.	0.8	16
25	Nonmigrating tidal modulation of the equatorial thermosphere and ionosphere anomaly. Journal of Geophysical Research: Space Physics, 2014, 119, 3036-3043.	0.8	18
26	The winter helium bulge revisited. Geophysical Research Letters, 2014, 41, 6603-6609.	1.5	18
27	Simulations of the equatorial thermosphere anomaly: Geomagnetic activity modulation. Journal of Geophysical Research: Space Physics, 2014, 119, 6821-6832.	0.8	8
28	On the role of clouds in the fair weather part of the global electric circuit. Atmospheric Chemistry and Physics, 2014, 14, 8599-8610.	1.9	30
29	A climatology of polar winter stratopause warmings and associated planetary wave breaking. Journal of Geophysical Research D: Atmospheres, 2013, 118, 4168-4180.	1.2	19
30	Toward a comprehensive global electric circuit model: Atmospheric conductivity and its variability in CESM1(WACCM) modelâ€‰simulations. Journal of Geophysical Research D: Atmospheres, 2013, 118, 9221-9232.	1.2	40
31	Recent anthropogenic increases in SO₂ from Asia have minimal impact on stratospheric aerosol. Geophysical Research Letters, 2013, 40, 999-1004.	1.5	89
32	Polarization Lidar at Summit, Greenland, for the Detection of Cloud Phase and Particle Orientation. Journal of Atmospheric and Oceanic Technology, 2013, 30, 1635-1655.	0.5	30
33	General description of polarization in lidar using Stokes vectors and polar decomposition of Mueller matrices. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2012, 29, 400.	0.8	46
34	Overcooling in the upper thermosphere during the recovery phase of the 2003 October storms. Journal of Geophysical Research, 2012, 117, .	3.3	46
35	Simulations of the equatorial thermosphere anomaly: Fieldâ€aligned ion drag effect. Journal of Geophysical Research, 2012, 117, .	3.3	19
36	How Do Coronal Hole Storms Affect the Upper Atmosphere?. Eos, 2012, 93, 77-79.	0.1	8

#	Article	IF	Citations
37	The impact of helium on thermosphere mass density response to geomagnetic activity during the recent solar minimum. Journal of Geophysical Research, 2012, 117, .	3.3	33
38	Simulations of the equatorial thermosphere anomaly: Physical mechanisms for crest formation. Journal of Geophysical Research, 2012, 117, .	3.3	22
39	Superposed epoch analyses of thermospheric response to CIRs: Solar cycle and seasonal dependencies. Journal of Geophysical Research, 2012, 117, .	3.3	21
40	Rapid recovery of thermosphere density during the October 2003 geomagnetic storms. Journal of Geophysical Research, 2011, 116, .	3.3	48
41	Implications of extinction due to meteoritic smoke in the upper stratosphere. Geophysical Research Letters, 2011, 38, .	1.5	49
42	Raman Lidar Profiling of Tropospheric Water Vapor over Kangerlussuaq, Greenland. Journal of Atmospheric and Oceanic Technology, 2011, 28, 1141-1148.	0.5	12
43	Observations of in-situ generated gravity waves during a stratospheric temperature enhancement (STE) event. Atmospheric Chemistry and Physics, 2011, 11, 11913-11917.	1.9	17
44	Lidar polarization measurements of PMCs. Journal of Atmospheric and Solar-Terrestrial Physics, 2011, 73, 2110-2117.	0.6	9
45	Synchronized imagery of noctilucent clouds at the dayâ€“night terminator using airborne and spaceborne platforms. Journal of Atmospheric and Solar-Terrestrial Physics, 2011, 73, 2091-2096.	0.6	4
46	Impact of CIR Storms on Thermosphere Density Variability during the Solar Minimum of 2008. Solar Physics, 2011, 274, 427-437.	1.0	62
47	Ionosphere response to recurrent geomagnetic activity: Local time dependency. Journal of Geophysical Research, 2010, 115, .	3.3	43
48	Wind and temperature effects on thermosphere mass density response to the November 2004 geomagnetic storm. Journal of Geophysical Research, 2010, 115, .	3.3	78
49	Radar, lidar, and optical observations in the polar summer mesosphere shortly after a space shuttle launch. Journal of Geophysical Research, 2010, 115, .	3.3	18
50	Longitudinal and geomagnetic activity modulation of the equatorial thermosphere anomaly. Journal of Geophysical Research, 2010, 115, .	3.3	35
51	Correction to â€œWind and temperature effects on thermosphere mass density response to the November 2004 geomagnetic stormâ€• Journal of Geophysical Research, 2010, 115, n/a-n/a.	3.3	2
52	Polarization lidar for shallow water depth measurement. Applied Optics, 2010, 49, 6995.	2.1	25
53	Frontâ€like behavior in the Arctic wintertime upper stratosphere and lower mesosphere. Journal of Geophysical Research, 2010, 115, .	3.3	12
54	Responses of polar mesospheric cloud brightness to stratospheric gravity waves at the South Pole and Rothera, Antarctica. Journal of Atmospheric and Solar-Terrestrial Physics, 2009, 71, 434-445.	0.6	24

#	Article	IF	Citations
55	Explicit description of polarization coupling in lidar applications. Optics Letters, 2009, 34, 611.	1.7	15
56	Isolation of the global MLT thermal response to recurrent geomagnetic activity. Geophysical Research Letters, 2009, 36, .	1.5	21
57	Frictionally heated electrons in the highâ€latitude D region. Journal of Geophysical Research, 2009, 114, .	3.3	2
58	Accounting for system affects in depolarization lidar. , 2009, , .		1
59	Mapping plasma structures in the high-latitude ionosphere using beacon satellite, incoherent scatter radar and ground-based magnetometer observations. Annals of Geophysics, 2009, 45, .	0.5	5
60	Introduction to the special issue â€œTransport processes in the coupled solar windâ€“geospace system seen from a high-latitude vantage pointâ€• Journal of Atmospheric and Solar-Terrestrial Physics, 2008, 70, 2233-2234.	0.6	0
61	Rotating solar coronal holes and periodic modulation of the upper atmosphere. Geophysical Research Letters, 2008, 35, .	1.5	128
62	Ionosphere response to solar wind highâ€speed streams. Geophysical Research Letters, 2008, 35, .	1.5	100
63	Observations of wintertime arctic mesosphere cooling associated with stratosphere baroclinic zones. Geophysical Research Letters, 2008, 35, .	1.5	14
64	Periodic modulations in thermospheric composition by solar wind high speed streams. Geophysical Research Letters, 2008, 35, .	1.5	80
65	Thermospheric density oscillations due to periodic solar wind highâ€speed streams. Journal of Geophysical Research, 2008, 113, .	3.3	111
66	Global thermospheric density variations caused by highâ€speed solar wind streams during the declining phase of solar cycle 23. Journal of Geophysical Research, 2008, 113, .	3.3	81
67	Changes in the longitudinal structure of the lowâ€latitude ionosphere during the July 2004 sequence of geomagnetic storms. Journal of Geophysical Research, 2008, 113, .	3.3	16
68	Parametric dependence of electric field variability in the Sondrestrom database: A linear relation withKp. Journal of Geophysical Research, 2006, 111, .	3.3	12
69	Anomalous electron heating and its effect on the electron density in the auroral electrojet. Geophysical Research Letters, 2006, 33, .	1.5	12
70	Modelling of the ionosphere/thermosphere behaviour during the April 2002 magnetic storms: A comparison of the UAM results with the ISR and NRLMSISE-00 data. Advances in Space Research, 2006, 37, 380-391.	1.2	14
71	Special issue on phenomena of the summertime mesosphere. Journal of Atmospheric and Solar-Terrestrial Physics, 2006, 68, 1-4.	0.6	3
72	Lidar observations of sodium density depletions in the presence of polar mesospheric clouds. Journal of Atmospheric and Solar-Terrestrial Physics, 2006, 68, 85-92.	0.6	16

#	Article	IF	Citations
73	Electrodynamical characteristics of the polar ionosphere over the auroral and polar cap regions based on incoherent scatter radar measurements. Journal of Atmospheric and Solar-Terrestrial Physics, 2006, 68, 881-900.	0.6	1
74	Observations of the April 2002 geomagnetic storm by the global network of incoherent scatter radars. Annales Geophysicae, 2005, 23, 163-181.	0.6	23
75	The Low-Altitude Cusp: Multi-Point Observations During the February 2002 SIRCUS Campaign. , 2005, , 375-380.		2
76	Pyro-cumulonimbus injection of smoke to the stratosphere: Observations and impact of a super blowup in northwestern Canada on 3â€“4 August 1998. Journal of Geophysical Research, 2005, 110, .	3.3	139
77	Incoherent scatter radar measurements and modeling of high-latitude solar photoionization. Journal of Geophysical Research, 2005, 110, .	3.3	4
78	Correction to â€œPyro-cumulonimbus injection of smoke to the stratosphere: Observations and impact of a super blowup in northwestern Canada on 3â€“4 August 1998â€• Journal of Geophysical Research, 2005, 110, .	3.3	0
79	Latitudinal variations of neutral wind structures in the lower thermosphere for the March equinox period. Journal of Atmospheric and Solar-Terrestrial Physics, 2004, 66, 105-117.	0.6	7
80	Concerning the upper stratospheric gravity wave and mesospheric cloud relationship over Sondrestrom, Greenland. Journal of Atmospheric and Solar-Terrestrial Physics, 2004, 66, 229-240.	0.6	21
81	The convergence of magnetospheric energy flux in the polar atmosphere. Journal of Atmospheric and Solar-Terrestrial Physics, 2004, 66, 807-824.	0.6	102
82	Review of ozone and temperature lidar validations performed within the framework of the Network for the Detection of Stratospheric Change. Journal of Environmental Monitoring, 2004, 6, 721.	2.1	80
83	Gravity waves and mesospheric clouds in the summer middle atmosphere: A comparison of lidar measurements and ray modeling of gravity waves over Sondrestrom, Greenland. Journal of Geophysical Research, 2004, 109, .	3.3	37
84	Gravity-wave influences on Arctic mesospheric clouds as determined by a Rayleigh lidar at Sondrestrom, Greenland. Journal of Geophysical Research, 2003, 108, .	3.3	63
85	Foreword: Layered phenomena in the mesopause region. Journal of Geophysical Research, 2003, 108, .	3.3	10
86	Ion upflow enhanced by driftingF-region plasma structure along the nightside polar cap boundary. Geophysical Research Letters, 2003, 30, .	1.5	32
87	Observation of an unusual mid-stratospheric aerosol layer in the Arctic: possible sources and implications for polar vortex dynamics. Annales Geophysicae, 2003, 21, 1057-1069.	0.6	28
88	Synoptic scale study of the Arctic polar vortex's influence on the middle atmosphere, 1, Observations. Journal of Geophysical Research, 2002, 107, ACL 1-1.	3.3	33
89	Observation of field-aligned and ionospheric currents during space weather month, September 1999. Advances in Space Research, 2002, 30, 2203-2208.	1.2	3
90	Consideration of non-Poisson distributions for lidar applications. Applied Optics, 2001, 40, 1488.	2.1	4

#	Article	IF	Citations
91	SuperDARN convection and Sondrestrom plasma drift. Annales Geophysicae, 2001, 19, 749-759.	0.6	25
92	Ionospheric electrodynamics: A tutorial. Geophysical Monograph Series, 2000, , 131-146.	0.1	49
93	Year-round temperature and wave measurements of the arctic middle atmosphere for 1995â€“1998. Geophysical Monograph Series, 2000, , 213-219.	0.1	7
94	Simultaneous observations of lower thermospheric composition change during moderate auroral activity from Kangerlussuaq and Narsarsuaq, Greenland. Journal of Geophysical Research, 2000, 105, 27109-27118.	3.3	12
95	High-latitude currents and their energy exchange with the ionosphere-thermosphere system. Journal of Geophysical Research, 2000, 105, 23015-23024.	3.3	37
96	Radar chain study of the May, 1995 storm. Journal of Atmospheric and Solar-Terrestrial Physics, 1999, 61, 233-248.	0.6	29
97	Coordinated incoherent scatter radar study of the January 1997 storm. Journal of Geophysical Research, 1999, 104, 24625-24637.	3.3	35
98	Radar measurements of the electromagnetic energy rates associated with the Dynamic Ionospheric Load/Generator. Geophysical Research Letters, 1998, 25, 469-472.	1.5	20
99	Height-resolved Joule heating rates in the high-latitudeEregion and the influence of neutral winds. Journal of Geophysical Research, 1998, 103, 471-487.	3.3	94
100	Energy transfer between the ionosphere and magnetosphere during the January 1997 CME event. Geophysical Research Letters, 1998, 25, 2597-2600.	1.5	11
101	Noctilucent clouds and wave dynamics: Observations at Sondrestrom, Greenland. Geophysical Research Letters, 1998, 25, 2817-2820.	1.5	24
102	A high-latitude observation of sporadic sodium and sporadicE-layer formation. Geophysical Research Letters, 1998, 25, 3059-3062.	1.5	49
103	Rayleigh lidar system for middle atmosphere research in the arctic. Optical Engineering, 1997, 36, 2045.	0.5	44
104	Multi-instrument zenith observations of noctilucent clouds over Greenland on July 30/31, 1995. Journal of Geophysical Research, 1997, 102, 1959-1970.	3.3	20
105	Investigation of a resonance Lidar for measurement of thermospheric metastable helium. Journal of Atmospheric and Solar-Terrestrial Physics, 1997, 59, 2023-2035.	0.6	17
106	Summary of field-aligned Poynting flux observations from DE 2. Geophysical Research Letters, 1995, 22, 1861-1864.	1.5	49
107	Noctilucent cloud observations over Greenland by a Rayleigh lidar. Geophysical Research Letters, 1995, 22, 2961-2964.	1.5	33
108	Interpretation and modeling of the high-latitude electromagnetic energy flux. Journal of Geophysical Research, 1995, 100, 19715.	3.3	89

#	Article	IF	Citations
109	A kinematic analysis of the highâ€latitude thermospheric neutral circulation pattern. Journal of Geophysical Research, 1993, 98, 11549-11565.	3.3	40
110	On the contribution of the thermospheric neutral wind to high-latitude energetics. Geophysical Research Letters, 1992, 19, 265-268.	1.5	49
111	The behavior of the high-latitude F-region neutral thermosphere in relation to IMF parameters. Advances in Space Research, 1992, 12, 215-218.	1.2	13
112	The influence of IMF B_Y on the highâ€latitude thermospheric circulation during northward IMF. Journal of Geophysical Research, 1991, 96, 115-128.	3.3	38
113	Vorticity and divergence in the highâ€latitude upper thermosphere. Geophysical Research Letters, 1991, 18, 701-704.	1.5	28
114	On the dynamics and composition of the high-latitude thermosphere. Journal of Atmospheric and Solar-Terrestrial Physics, 1991, 53, 797-814.	0.9	13