Arthur D Richmond

List of Publications by Citations

219 papers	12,152 citations	60 h-index	103 g-index
225 ext. papers	13,118 ext. citations	3.4 avg, IF	6.34 L-index

#	Paper	IF	Citations
219	A thermosphere/ionosphere general circulation model with coupled electrodynamics. *Geophysical Research Letters*, **1992**, 19, 601-604	4.9	732
218	A coupled thermosphere/ionosphere general circulation model. *Geophysical Research Letters*, **1988**, 15, 1325-1328	4.9	572
217	Mapping electrodynamic features of the high-latitude ionosphere from localized observations: Technique. *Journal of Geophysical Research*, **1988**, 93, 5741		495
216	Ionospheric Electrodynamics Using Magnetic Apex Coordinates.. *Journal of Geomagnetism and Geoelectricity*, **1995**, 47, 191-212		460
215	Estimation of ionospheric electric fields, ionospheric currents, and field-aligned currents from ground magnetic records. *Journal of Geophysical Research*, **1981**, 86, 801		294
214	Thermospheric response to a magnetic substorm. *Journal of Geophysical Research*, **1975**, 80, 2839-2850		267
213	Interplanetary magnetic field control of high-latitude electric fields and currents determined from Greenland Magnetometer Data. *Journal of Geophysical Research*, **1985**, 90, 1325		209
212	An empirical model of quiet-day ionospheric electric fields at middle and low latitudes. *Journal of Geophysical Research*, **1980**, 85, 4658-4664		209
211	Gravity wave generation, propagation, and dissipation in the thermosphere. *Journal of Geophysical Research*, **1978**, 83, 4131		207
210	Equatorial electrojet Development of a model including winds and instabilities. *Journal of Atmospheric and Solar-Terrestrial Physics*, **1973**, 35, 1083-1103		206
209	Ionospheric variability due to planetary waves and tides for solar minimum conditions. *Journal of Geophysical Research*, **2010**, 115, n/a-n/a		181
208	On the production mechanism of electric currents and fields in the ionosphere. *Journal of Geophysical Research*, **1976**, 81, 547-555		181
207	Connections between deep tropical clouds and the Earth's ionosphere. *Geophysical Research Letters* , **2007**, 34,	4.9	177
206	Storm-time changes in the upper atmosphere at low latitudes. *Journal of Atmospheric and Solar-Terrestrial Physics*, **2002**, 64, 1383-1391	2	166
205	Interaction between direct penetration and disturbance dynamo electric fields in the storm-time equatorial ionosphere. *Geophysical Research Letters*, **2005**, 32,	4.9	158
204	The NCAR TIE-GCM. *Geophysical Monograph Series*, **2014**, 73-83	1.1	154
203	Simulation of the pre-reversal enhancement in the low latitude vertical ion drifts. *Geophysical Research Letters*, **2000**, 27, 1851-1854	4.9	153

202	An investigation into the influence of tidal forcing on F region equatorial vertical ion drift using a global ionosphere-thermosphere model with coupled electrodynamics. *Journal of Geophysical Research*, **2001**, 106, 24733-24744		153
201	Theoretical study of the low- and midlatitude ionospheric electron density enhancement during the October 2003 superstorm: Relative importance of the neutral wind and the electric field. *Journal of Geophysical Research*, **2005**, 110,		151
200	Long-lasting disturbances in the equatorial ionospheric electric field simulated with a coupled magnetosphere-ionosphere-thermosphere model. *Journal of Geophysical Research*, **2003**, 108,		150
199	Magnetosphere-ionosphere-thermosphere coupling: Effect of neutral winds on energy transfer and field-aligned current. *Journal of Geophysical Research*, **1995**, 100, 19643		135
198	Development and Validation of the Whole Atmosphere Community Climate Model With Thermosphere and Ionosphere Extension (WACCM-X 2.0). *Journal of Advances in Modeling Earth Systems*, **2018**, 10, 381-402	7.1	133
197	Magnetic Coordinate Systems. *Space Science Reviews*, **2017**, 206, 27-59	7.5	114
196	Thermosphere extension of the Whole Atmosphere Community Climate Model. *Journal of Geophysical Research*, **2010**, 115, n/a-n/a		113
195	Upper-atmospheric effects of magnetic storms: a brief tutorial. *Journal of Atmospheric and Solar-Terrestrial Physics*, **2000**, 62, 1115-1127	2	111
194	Electrodynamic effects of thermospheric winds from the NCAR Thermospheric General Circulation Model. *Journal of Geophysical Research*, **1987**, 92, 12365		110
193	Observations and simulations of the ionospheric and thermospheric response to the December 2006 geomagnetic storm: Initial phase. *Journal of Geophysical Research*, **2008**, 113, n/a-n/a		104
192	A computationally compact representation of Magnetic-Apex and Quasi-Dipole coordinates with smooth base vectors. *Journal of Geophysical Research*, **2010**, 115, n/a-n/a		102
191	Electrodynamic coupling of high and low latitudes: Simulations of shielding/overshielding effects. *Journal of Geophysical Research*, **2000**, 105, 22991-23003		102
190	A dayside ionospheric positive storm phase driven by neutral winds. *Journal of Geophysical Research* , **2008**, 113, n/a-n/a		91
189	Interhemispheric asymmetry of the high-latitude ionospheric convection pattern. *Journal of Geophysical Research*, **1994**, 99, 6491		91
188	A theory of ionospheric response to upward-propagating tides: Electrodynamic effects and tidal mixing effects. *Journal of Geophysical Research: Space Physics*, **2013**, 118, 5891-5905	2.6	90
187	How Does the Thermosphere and Ionosphere React to a Geomagnetic Storm?. *Geophysical Monograph Series*, **1997**, 203-225	1.1	89
186	Winds in the high-latitude lower thermosphere: Dependence on the interplanetary magnetic field. *Journal of Geophysical Research*, **2003**, 108,		85
185	Theoretical effects of geomagnetic activity on low-latitude ionospheric electric fields. *Journal of Geophysical Research*, **2005**, 110,		84

184	Global distribution of ionospheric and field-aligned currents during substorms as determined from six IMS meridian chains of magnetometers: Initial results. *Journal of Geophysical Research*, **1982**, 87, 8228		83
183	Simulations of solar and lunar tidal variability in the mesosphere and lower thermosphere during sudden stratosphere warmings and their influence on the low-latitude ionosphere. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		82
182	Mapping electrodynamic features of the high-latitude ionosphere from localized observations: Combined incoherent-scatter radar and magnetometer measurements for January 18–19, 1984. *Journal of Geophysical Research*, **1988**, 93, 5760		77
181	Behavior of the F2 peak ionosphere over the South Pacific at dusk during quiet summer conditions from COSMIC data. *Journal of Geophysical Research*, **2008**, 113, n/a-n/a		76
180	Ionospheric wind dynamo theory: A review.. *Journal of Geomagnetism and Geoelectricity*, **1979**, 31, 287-310		76
179	Equatorial electrojet—. Use of the model to study the equatorial ionosphere. *Journal of Atmospheric and Solar-Terrestrial Physics*, **1973**, 35, 1105-1118		74
178	Experiments with a lunar atmospheric tidal model. *Journal of Geophysical Research*, **1997**, 102, 13465-13471		73
177	Large-amplitude gravity wave energy production and dissipation in the thermosphere. *Journal of Geophysical Research*, **1979**, 84, 1880		73
176	Low-latitude plasma drifts from a simulation of the global atmospheric dynamo. *Journal of Geophysical Research*, **1993**, 98, 6039-6046		72
175	Modeling the ionosphere wind dynamo: A review. *Pure and Applied Geophysics*, **1989**, 131, 413-435	2.2	72
174	Comparison of equatorial electrojet models. *Journal of Atmospheric and Solar-Terrestrial Physics*, **1977**, 39, 1119-1124		72
173	Coexistence of ionospheric positive and negative storm phases under northern winter conditions: A case study. *Journal of Geophysical Research*, **2001**, 106, 24493-24504		71
172	Ionospheric effects of the gravity wave launched by the September 18, 1974, sudden commencement. *Journal of Geophysical Research*, **1978**, 83, 999		71
171	Stratospheric warmings and the geomagnetic lunar tide: 1958–2007. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		68
170	Assessment of the non-hydrostatic effect on the upper atmosphere using a general circulation model (GCM). *Geophysical Research Letters*, **2008**, 35,	4.9	67
169	Ionospheric electrical conductances produced by auroral proton precipitation. *Journal of Geophysical Research*, **2001**, 106, 117-125		67
168	Ionospheric convection response to slow, strong variations in a northward interplanetary magnetic field: A case study for January 14, 1988. *Journal of Geophysical Research*, **1993**, 98, 19273-19292		67
167	Ionospheric electric field variations during a geomagnetic storm simulated by a coupled magnetosphere ionosphere thermosphere (CMIT) model. *Geophysical Research Letters*, **2008**, 35,	4.9	65

166	Modeling storm-time electrodynamics of the low-latitude ionosphere–thermosphere system: Can long lasting disturbance electric fields be accounted for?. *Journal of Atmospheric and Solar-Terrestrial Physics*, **2007**, 69, 1182-1199	2	64
165	High-latitude ionospheric electric field variability and electric potential derived from DE-2 plasma drift measurements: Dependence on IMF and dipole tilt. *Journal of Geophysical Research*, **2003**, 108, SIA 1-1		64
164	The Global-Scale Observations of the Limb and Disk (GOLD) Mission. *Space Science Reviews*, **2017**, 212, 383-408	7.5	63
163	The ionospheric dynamo and equatorial magnetic variations. *Journal of Atmospheric and Solar-Terrestrial Physics*, **1973**, 35, 1045-1061		63
162	Causal link of the wave-4 structures in plasma density and vertical plasma drift in the low-latitude ionosphere. *Journal of Geophysical Research*, **2009**, 114, n/a-n/a		61
161	Ionospheric convection response to changing IMF direction. *Geophysical Research Letters*, **1991**, 18, 721-724	4.9	61
160	The quiet-time equatorial electrojet and counter-electrojet.. *Journal of Geomagnetism and Geoelectricity*, **1979**, 31, 311-340		61
159	Attribution of ionospheric vertical plasma drift perturbations to large-scale waves and the dependence on solar activity. *Journal of Geophysical Research: Space Physics*, **2013**, 118, 2452-2465	2.6	60
158	Large-scale variations of the low-latitude ionosphere during the October–November 2003 superstorm: Observational results. *Journal of Geophysical Research*, **2005**, 110,		59
157	Global measures of ionospheric electrodynamic activity inferred from combined incoherent scatter radar and ground magnetometer observations. *Journal of Geophysical Research*, **1990**, 95, 1061		59
156	Assimilation of FORMOSAT-3/COSMIC electron density profiles into a coupled thermosphere/ionosphere model using ensemble Kalman filtering. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		58
155	An ionospheric conductance model based on ground magnetic disturbance data. *Journal of Geophysical Research*, **1998**, 103, 14769-14780		58
154	Modelling the effects of changes in the Earth's magnetic field from 1957 to 1997 on the ionospheric hmF2 and foF2 parameters. *Journal of Atmospheric and Solar-Terrestrial Physics*, **2008**, 70, 1512-1524	2	58
153	Sources of low-latitude ionospheric E×B drifts and their variability. *Journal of Geophysical Research* , **2012**, 117, n/a-n/a		56
152	Forecasting the dynamic and electrodynamic response to the January 2009 sudden stratospheric warming. *Geophysical Research Letters*, **2011**, 38, n/a-n/a	4.9	56
151	Electrodynamic coupling of high and low latitudes: Observations on May 27, 1993. *Journal of Geophysical Research*, **2000**, 105, 22979-22989		54
150	Equatorial electrojet and regular daily variation SR—I. Comparison of observations with a physical model. *Journal of Atmospheric and Solar-Terrestrial Physics*, **1976**, 38, 113-121		52
149	The relationship between the structure of the equatorial anomaly and the strength of the equatorial electrojet. *Journal of Atmospheric and Solar-Terrestrial Physics*, **1973**, 35, 1171-1180		51

148	Electric field in the ionosphere and plasmasphere on quiet days. *Journal of Geophysical Research*, **1976**, 81, 1447-1450		50
147	Modes of high-latitude electric field variability derived from DE-2 measurements: Empirical Orthogonal Function (EOF) analysis. *Geophysical Research Letters*, **2002**, 29, 11-1	4.9	47
146	Ionospheric conductivity dependence of electric fields and currents estimated from ground magnetic observations. *Journal of Geophysical Research*, **1982**, 87, 8331		47
145	Longitudinal variations in the F region ionosphere and the topside ionosphere-plasmasphere: Observations and model simulations. *Journal of Geophysical Research*, **2011**, 116, n/a-n/a		46
144	Effects of high-latitude ionospheric electric field variability on global thermospheric Joule heating and mechanical energy transfer rate. *Journal of Geophysical Research*, **2008**, 113, n/a-n/a		45
143	Ionospheric control of the magnetospheric configuration: Thermospheric neutral winds. *Journal of Geophysical Research*, **2003**, 108,		45
142	Ionospheric Electrodynamics Modeling. *Geophysical Monograph Series*, **2014**, 57-71	1.1	43
141	Modeling equatorial ionospheric electric fields. *Journal of Atmospheric and Solar-Terrestrial Physics*, **1995**, 57, 1103-1115		43
140	Changes in the Earth's magnetic field over the past century: Effects on the ionosphere-thermosphere system and solar quiet (Sq) magnetic variation. *Journal of Geophysical Research: Space Physics*, **2013**, 118, 849-858	2.6	42
139	Model simulation of the equatorial electrojet in the Peruvian and Philippine sectors. *Journal of Atmospheric and Solar-Terrestrial Physics*, **2008**, 70, 2203-2211	2	42
138	Self-induced motions of thermal plasma in the magnetosphere and the stability of the plasmapause. *Radio Science*, **1973**, 8, 1019-1027	1.4	42
137	High-latitude energy input and its impact on the thermosphere. *Journal of Geophysical Research: Space Physics*, **2016**, 121, 7108-7124	2.6	41
136	Ionospheric Electrodynamics: A Tutorial. *Geophysical Monograph Series*, **2000**, 131-146	1.1	41
135	Dynamic effects of aurora-generated gravity waves on the mid-latitude ionosphere. *Journal of Atmospheric and Solar-Terrestrial Physics*, **1979**, 41, 841-852		41
134	On the day-to-day variation of the equatorial electrojet during quiet periods. *Journal of Geophysical Research: Space Physics*, **2014**, 119, 6966-6980	2.6	39
133	On the ionospheric application of Poynting's theorem. *Journal of Geophysical Research*, **2010**, 115, n/a-n/a		39
132	An analysis of the momentum forcing in the high-latitude lower thermosphere. *Journal of Geophysical Research*, **2007**, 112, n/a-n/a		39
131	Simulation study of the longitudinal variation of evening vertical ionospheric drifts at the magnetic equator during equinox. *Journal of Geophysical Research*, **2005**, 110,		39

130	Atmospheric semidiurnal lunar tide climatology simulated by the Whole Atmosphere Community Climate Model. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		38
129	Seasonal and longitudinal variations of the solar quiet (Sq) current system during solar minimum determined by CHAMP satellite magnetic field observations. *Journal of Geophysical Research*, **2011**, 116, n/a-n/a		38
128	Impact of electric field variability on Joule heating and thermospheric temperature and density. *Geophysical Research Letters*, **2009**, 36,	4.9	38
127	Optimal interpolation analysis of high-latitude ionospheric electrodynamics using empirical orthogonal functions: Estimation of dominant modes of variability and temporal scales of large-scale electric fields. *Journal of Geophysical Research*, **2005**, 110,		38
126	A magnetosphere-thermosphere-ionosphere electrodynamics general circulation model. *Journal of Geophysical Research*, **1998**, 103, 17467-17477		38
125	The nature of gravity wave ducting in the thermosphere. *Journal of Geophysical Research*, **1978**, 83, 1385		38
124	Geomagnetic Crochets and Associated Ionospheric Current Systems. *Radio Science*, **1971**, 6, 139-164	1.4	38
123	Tidal Winds at Ionospheric Heights. *Radio Science*, **1971**, 6, 175-189	1.4	38
122	Height distribution of Joule heating and its influence on the thermosphere. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		37
121	Simulation of equatorial electrojet magnetic effects with the thermosphere-ionosphere-electrodynamics general circulation model. *Journal of Geophysical Research*, **2007**, 112, n/a-n/a		37
120	How changes in the tilt angle of the geomagnetic dipole affect the coupled magnetosphere-ionosphere-thermosphere system. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		34
119	Quasi-two-day wave coupling of the mesosphere and lower thermosphere-ionosphere in the TIME-GCM: Two-day oscillations in the ionosphere. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		34
118	Ground-based studies of ionospheric convection associated with substorm expansion. *Journal of Geophysical Research*, **1994**, 99, 19451		34
117	The dependence of the coupled magnetosphere-ionosphere-thermosphere system on the Earth's magnetic dipole moment. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		33
116	Wavenumber broadening of the quasi 2 day planetary wave in the ionosphere. *Journal of Geophysical Research: Space Physics*, **2013**, 118, 3515-3526	2.6	33
115	An investigation of the influence of data and model inputs on assimilative mapping of ionospheric electrodynamics. *Journal of Geophysical Research*, **2001**, 106, 417-433		33
114	Variations of total electron content during geomagnetic disturbances: A model/observation comparison. *Geophysical Research Letters*, **1998**, 25, 253-256	4.9	33
113	Electrodynamic patterns for September 19, 1984. *Journal of Geophysical Research*, **1989**, 94, 16913		33

112	Electrodynamics of the equatorial evening ionosphere: 1. Importance of winds in different regions. *Journal of Geophysical Research: Space Physics*, **2015**, 120, 2118-2132	2.6	32
111	Mapping high-latitude ionospheric electrodynamics with SuperDARN and AMPERE. *Journal of Geophysical Research: Space Physics*, **2015**, 120, 5854-5870	2.6	32
110	The response of the coupled magnetosphere-ionosphere-thermosphere system to a 25% reduction in the dipole moment of the Earth's magnetic field. *Journal of Geophysical Research*, **2011**, 116, n/a-n/a		32
109	Wind dynamo effects on ground magnetic perturbations and vertical drifts. *Journal of Geophysical Research*, **2008**, 113, n/a-n/a		32
108	Energy Relations of Atmospheric Tides and Their Significance to Approximate Methods of Solution for Tides with Dissipative Forces. *Journals of the Atmospheric Sciences*, **1975**, 32, 980-987	2.1	31
107	Post-Storm Middle and Low-Latitude Ionospheric Electric Fields Effects. *Space Science Reviews*, **2017**, 206, 407-429	7.5	30
106	The Ionospheric Wind Dynamo: Effects of Its Coupling With Different Atmospheric Regions. *Geophysical Monograph Series*, **2013**, 49-65	1.1	30
105	Assimilative mapping of ionospheric electrodynamics in the thermosphere-ionosphere general circulation model comparisons with global ionospheric and thermospheric observations during the GEM/SUNDIAL period of March 28–29, 1992. *Journal of Geophysical Research*, **1996**, 101, 26681-26696		30
104	Impact of semidiurnal tidal variability during SSWs on the mean state of the ionosphere and thermosphere. *Journal of Geophysical Research: Space Physics*, **2016**, 121, 8077-8088	2.6	29
103	SuperDARN assimilative mapping. *Journal of Geophysical Research: Space Physics*, **2013**, 118, 7954-7962	2.6	29
102	Theoretical study of new plasma structures in the low-latitude ionosphere during a major magnetic storm. *Journal of Geophysical Research*, **2009**, 114, n/a-n/a		29
101	Comparison of magnetic perturbation data from LEO satellite constellations: Statistics of DMSP and AMPERE. *Space Weather*, **2014**, 12, 2-23	3.7	28
100	Comparison of VHF Doppler beam swinging and spaced antenna observations with the MU radar: First results. *Radio Science*, **1990**, 25, 629-640	1.4	28
99	TIME-GCM study of the ionospheric equatorial vertical drift changes during the 2006 stratospheric sudden warming. *Journal of Geophysical Research: Space Physics*, **2014**, 119, 1287-1305	2.6	27
98	Longitudinal and interhemispheric variations of auroral ionospheric electrodynamics in a realistic geomagnetic field. *Journal of Geophysical Research*, **1998**, 103, 4011-4021		27
97	Magnetic mirroring in an incident proton beam. *Journal of Geophysical Research*, **1999**, 104, 4447-4455		27
96	Radar interferometry technique and anisotropy of the echo power distribution: First results. *Radio Science*, **1991**, 26, 1315-1326	1.4	27
95	The computation of magnetic effects of field-aligned magnetospheric currents. *Journal of Atmospheric and Solar-Terrestrial Physics*, **1974**, 36, 245-252		27

94	Low-latitude E region ionization by energetic ring current particles. *Journal of Geophysical Research*, **1978**, 83, 2201		27
93	(F)-Region Dynamo Simulations at Low and Mid-Latitude. *Space Science Reviews*, **2017**, 206, 471-493	7.5	25
92	Ground magnetic effects of the equatorial electrojet simulated by the TIE-GCM driven by TIMED satellite data. *Journal of Geophysical Research: Space Physics*, **2014**, 119, 3150-3161	2.6	25
91	Neutral wind effect in producing a storm time ionospheric additional layer in the equatorial ionization anomaly region. *Journal of Geophysical Research*, **2009**, 114, n/a-n/a		25
90	Expert Knowledge and Multivariate Emulation: The Thermosphere–Ionosphere Electrodynamics General Circulation Model (TIE-GCM). *Technometrics*, **2009**, 51, 414-424	1.4	24
89	Neutral wind influence on the electrodynamic coupling between the ionosphere and the magnetosphere. *Journal of Geophysical Research*, **2002**, 107, SMP 2-1		24
88	Analysis of thermospheric response to magnetospheric inputs. *Journal of Geophysical Research*, **2008**, 113, n/a-n/a		23
87	Intense dayside Joule heating during the 5 April 2010 geomagnetic storm recovery phase observed by AMIE and AMPERE. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		22
86	Theoretical effects of geomagnetic activity on thermospheric tides. *Journal of Geophysical Research* , **1993**, 98, 15599		22
85	In-situ generated gravity waves as a possible seeding mechanism for equatorial spread-F. *Geophysical Research Letters*, **1982**, 9, 789-792	4.9	22
84	Mesoscale and large-scale variability in high-latitude ionospheric convection: Dominant modes and spatial/temporal coherence. *Journal of Geophysical Research: Space Physics*, **2013**, 118, 7895-7904	2.6	21
83	The AMIE procedure: Prospects for space weather specification and prediction. *Advances in Space Research*, **1998**, 22, 103-112	2.4	21
82	Inverse procedure for high-latitude ionospheric electrodynamics: Analysis of satellite-borne magnetometer data. *Journal of Geophysical Research: Space Physics*, **2015**, 120, 5241-5251	2.6	20
81	Forcing the TIEGCM model with Birkeland currents from the Active Magnetosphere and Planetary Electrodynamics Response Experiment. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		20
80	Lunar tides in the Thermosphere-Ionosphere-Electrodynamics General Circulation Model. *Journal of Geophysical Research*, **1999**, 104, 1-13		20
79	A storm time assimilative mapping of ionospheric electrodynamics analysis for the severe geomagnetic storm of November 8–9, 1991. *Journal of Geophysical Research*, **1995**, 100, 19329		20
78	Radar interferometry technique: Three-dimensional wind measurement theory. *Radio Science*, **1991** , 26, 1209-1218	1.4	20
77	Sq current system during stratospheric sudden warming events in 2006 and 2009. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		19

76	The (F)-Region Gravity and Pressure Gradient Current Systems: A Review. *Space Science Reviews*, **2017**, 206, 451-469	7.5	18
75	Dominant modes of variability in large-scale Birkeland currents. *Journal of Geophysical Research: Space Physics*, **2015**, 120, 6722-6735	2.6	18
74	Simulation of electric field and current during the 11 June 1993 disturbance dynamo event: Comparison with the observations. *Journal of Geophysical Research*, **2010**, 115, n/a-n/a		18
73	Dependence of the high-latitude thermospheric densities on the interplanetary magnetic field. *Journal of Geophysical Research*, **2009**, 114, n/a-n/a		18
72	Mean winds, tides, and quasi-2 day wave in the polar lower thermosphere observed in European Incoherent Scatter (EISCAT) 8 day run data in November 2003. *Journal of Geophysical Research*, **2005**, 110,		18
71	Thermospheric Dynamics and Electrodynamics. *Astrophysics and Space Science Library*, **1983**, 523-607	0.3	18
70	Electrodynamics of the equatorial evening ionosphere: 2. Conductivity influences on convection, current, and electrodynamic energy flow. *Journal of Geophysical Research: Space Physics*, **2015**, 120, 2133-2147	2.6	17
69	Global Modeling of Storm-Time Thermospheric Dynamics and Electrodynamics. *Geophysical Monograph Series*, **2013**, 187-200	1.1	17
68	Simulations of the equatorial thermosphere anomaly: Field-aligned ion drag effect. *Journal of Geophysical Research*, **2012**, 117,		17
67	The ionospheric gravity and diamagnetic current systems. *Journal of Geophysical Research*, **2011**, 116, n/a-n/a		17
66	Small-Scale and Mesoscale Variabilities in the Electric Field and Particle Precipitation and Their Impacts on Joule Heating. *Journal of Geophysical Research: Space Physics*, **2018**, 123, 9862-9872	2.6	17
65	Solar cycle variations in F region electrodynamic drifts at Arecibo. *Journal of Geophysical Research*, **1990**, 95, 4303		16
64	Dependence of the high-latitude lower thermospheric wind vertical vorticity and horizontal divergence on the interplanetary magnetic field. *Journal of Geophysical Research: Space Physics*, **2014**, 119, 1356-1368	2.6	15
63	Estimation of ionospheric electric fields and currents from a regional magnetometer array. *Journal of Geophysical Research*, **1985**, 90, 3525		15
62	Theory of longitudinal gradients in the equatorial electrojet. *Journal of Atmospheric and Solar-Terrestrial Physics*, **1976**, 38, 279-286		15
61	Relation of the westward drift of the geomagnetic field to the rotation of the Earth's core. *Journal of Geophysical Research*, **1969**, 74, 3013-3018		15
60	Dependence of the high-latitude lower thermospheric momentum forcing on the interplanetary magnetic field. *Journal of Geophysical Research*, **2007**, 112, n/a-n/a		14
59	Modeling the Storm Time Electrodynamics **2011**, 455-464		13

58	Mapping of the ionospheric field-aligned currents to the equatorial magnetosphere. *Journal of Geophysical Research*, **1997**, 102, 14467-14476		13
57	A Comparison of Model-Based Ionospheric and Ocean Tidal Magnetic Signals With Observatory Data. *Geophysical Research Letters*, **2018**, 45, 7257-7267	4.9	12
56	Effects of High-Latitude Forcing Uncertainty on the Low-Latitude and Midlatitude Ionosphere. *Journal of Geophysical Research: Space Physics*, **2018**, 123, 862-882	2.6	11
55	DYNAMICAL METEOROLOGY | Atmospheric Tides **2015**, 287-297		11
54	Investigation of seasonal and interannual variations of internal gravity wave intensity in the thermosphere over Saint Santin. *Journal of Geophysical Research*, **1994**, 99, 6297		11
53	On the formation of a fast thermospheric zonal wind at the magnetic dip equator. *Geophysical Research Letters*, **2011**, 38, n/a-n/a	4.9	10
52	Electrodynamic coupling effects in the thermosphere/ionosphere system. *Advances in Space Research*, **1997**, 20, 1115-1124	2.4	10
51	Modeling seasonal and diurnal effects on ionospheric conductances, region-2 currents, and plasma convection in the inner magnetosphere. *Journal of Geophysical Research*, **2007**, 112, n/a-n/a		10
50	Auroral effects on midlatitude semidiurnal tides. *Geophysical Research Letters*, **1991**, 18, 412-415	4.9	10
49	Examining the Magnetic Signal Due To Gravity and Plasma Pressure Gradient Current With the TIE-GCM. *Journal of Geophysical Research: Space Physics*, **2017**, 122, 12,486-12,504	2.6	9
48	An application of principal component analysis to the interpretation of ionospheric current systems. *Journal of Geophysical Research: Space Physics*, **2017**, 122, 5687-5708	2.6	8
47	Bayesian calibration of the Thermosphere-Ionosphere Electrodynamics General Circulation Model (TIE-GCM). *Geoscientific Model Development*, **2009**, 2, 137-144	6.3	8
46	Modeling the geomagnetic perturbations produced by ionospheric currents, above and below the ionosphere. *Journal of Geodynamics*, **2002**, 33, 143-156	2.2	8
45	Space weather research prompts study of ionosphere and upper atmospheric electrodynamics. *Eos*, **1996**, 77, 101	1.5	8
44	Ionospheric drift similarities at magnetic conjugate and nonconjugate locations. *Journal of Geophysical Research*, **1996**, 101, 15773-15782		8
43	Mapping ionospheric convection response to IMF By negative and Bz positive conditions. *Journal of Atmospheric and Solar-Terrestrial Physics*, **1994**, 56, 223-235		8
42	Estimation of Electric Fields and Currents from Ground-Based Magnetometer Data. *Geophysical Monograph Series*, **1984**, 67-76	1.1	8
41	Global-Scale Observations of the Limb and Disk (Gold): New Observing Capabilities for the Ionosphere-Thermosphere. *Geophysical Monograph Series*, **2013**, 319-326	1.1	7

40	Lidar and CTIPe model studies of the fast amplitude growth with altitude of the diurnal temperature tides in the Antarctic winter lower thermosphere and dependence on geomagnetic activity. *Geophysical Research Letters*, **2015**, 42, 697-704	4.9	7
39	Electrodynamics of Ionosphere Thermosphere Coupling **2011**, 191-201		7
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