Rod A Heelis

List of Publications by Year in Descending Order

240 papers	8,696 citations	49 h-index	81 g-index
245 ext. papers	9,378 ext. citations	3.9 avg, IF	5.71 L-index

#	Paper	IF	Citations
240	Regulation of ionospheric plasma velocities by thermospheric winds.. *Nature Geoscience*, **2021**, 14, 893-898	12.3	4
239	Q2DW-Tide and -Ionosphere Interactions as Observed From ICON and Ground-Based Radars.. *Journal of Geophysical Research: Space Physics*, **2021**, 126, e2021JA029961	2.6	0
238	Ionospheric Storm-Enhanced Density Plumes. *Geophysical Monograph Series*, **2021**, 115-126	1.1	0
237	Large-Scale O+ Depletions Observed by ICON in the Post-Midnight Topside Ionosphere: Data/Model Comparison. *Geophysical Research Letters*, **2021**, 48, e2020GL092061	4.9	3
236	Atmosphere-Ionosphere (A-I) Coupling as Viewed by ICON: Day-to-Day Variability Due to Planetary Wave (PW)-Tide Interactions. *Journal of Geophysical Research: Space Physics*, **2021**, 126, e2020JA028927	2.6	2
235	Lower-thermosphere-Ionosphere (LTI) quantities: current status of measuring techniques and models. *Annales Geophysicae*, **2021**, 39, 189-237	2	8
234	Ion Velocity and Temperature Variation Around Topside Nighttime Irregularities: Contrast Between Low- and Mid-Latitude Regions. *Journal of Geophysical Research: Space Physics*, **2021**, 126, e2020JA028810	2.6	0
233	Isolated Peak of Oxygen Ion Fraction in the Post-Noon Equatorial F-Region: ICON and SAMI3/WACCM-X. *Journal of Geophysical Research: Space Physics*, **2021**, 126, e2021JA029217	2.6	1
232	Sensitivity of Upper Atmosphere to Different Characteristics of Flow Bursts in the Auroral Zone. *Journal of Geophysical Research: Space Physics*, **2021**, 126, e2021JA029253	2.6	0
231	Challenges to Understanding the Earth's Ionosphere and Thermosphere. *Journal of Geophysical Research: Space Physics*, **2020**, 125, e2019JA027497	2.6	14
230	Low-Latitude Whistler-Wave Spectra and Polarization From VEFI and CINDI Payloads on C/NOFS Satellite. *Journal of Geophysical Research: Space Physics*, **2020**, 125, e2019JA027074	2.6	1
229	Ion Cyclotron Resonant Absorption Lines in ELF Hiss Power Spectral Density in the Low-Latitude Ionosphere. *Geophysical Research Letters*, **2020**, 47, e2019GL086315	4.9	3
228	Effects of Alignment Between Particle Precipitation and Ion Convection Patterns on Joule Heating. *Journal of Geophysical Research: Space Physics*, **2019**, 124, 4905-4915	2.6	7
227	Spatial Characteristics of Mesoscale Plasma Flow Perturbations and Accompanying Electron Precipitation in the High-Latitude Ionosphere. *Journal of Geophysical Research: Space Physics*, **2019**, 124, 10444-10458	2.6	1
226	Impact of Flow Bursts in the Auroral Zone on the Ionosphere and Thermosphere. *Journal of Geophysical Research: Space Physics*, **2019**, 124, 10459-10467	2.6	5
225	Temporal Characteristic of the Mesoscale Plasma Flow Perturbations in the High-Latitude Ionosphere. *Journal of Geophysical Research: Space Physics*, **2019**, 124, 459-469	2.6	2
224	Coordinated Satellite Observations of the Very Low Frequency Transmission Through the Ionospheric D Layer at Low Latitudes, Using Broadband Radio Emissions From Lightning. *Journal of Geophysical Research: Space Physics*, **2018**, 123, 2926-2952	2.6	7

223	Measurement of Individual H+ and O+ Ion Temperatures in the Topside Ionosphere. *Journal of Geophysical Research: Space Physics*, **2018**, 123, 1525-1533	2.6	1
222	The Plasma Environment Associated With Equatorial Ionospheric Irregularities. *Journal of Geophysical Research: Space Physics*, **2018**, 123, 1583-1592	2.6	5
221	Motions of the Convection Reversal Boundary and Local Plasma in the High-Latitude Ionosphere. *Journal of Geophysical Research: Space Physics*, **2018**, 123, 2953-2963	2.6	5
220	Plasma Dynamics Associated With Equatorial Ionospheric Irregularities. *Geophysical Research Letters*, **2018**, 45, 7927-7932	4.9	2
219	The Ion/Electron Temperature Characteristics of Polar Cap Classical and Hot Patches and Their Influence on Ion Upflow. *Geophysical Research Letters*, **2018**, 45, 8072-8080	4.9	11
218	The Ionospheric Connection Explorer Mission: Mission Goals and Design. *Space Science Reviews*, **2018**, 214, 1	7.5	68
217	Mesoscale Plasma Convection Perturbations in the High-Latitude Ionosphere. *Journal of Geophysical Research: Space Physics*, **2018**, 123, 7609-7620	2.6	8
216	Combined Contribution of Solar Illumination, Solar Activity, and Convection to Ion Upflow Above the Polar Cap. *Journal of Geophysical Research: Space Physics*, **2018**, 123, 4317-4328	2.6	10
215	Observed Propagation Route of VLF Transmitter Signals in the Magnetosphere. *Journal of Geophysical Research: Space Physics*, **2018**, 123, 5528-5537	2.6	15
214	Daytime ion and electron temperatures in the topside ionosphere at middle latitudes. *Journal of Geophysical Research: Space Physics*, **2017**, 122, 2202-2209	2.6	2
213	Source of the low-altitude hiss in the ionosphere. *Geophysical Research Letters*, **2017**, 44, 2060-2069	4.9	21
212	Modeling the daytime energy balance of the topside ionosphere at middle latitudes. *Journal of Geophysical Research: Space Physics*, **2017**, 122, 5733-5742	2.6	1
211	Equatorial plasma bubbles: Variations of occurrence and spatial scale in local time, longitude, season, and solar activity. *Journal of Geophysical Research: Space Physics*, **2017**, 122, 5743-5755	2.6	26
210	Effects of electric field methods on modeling the midlatitude ionospheric electrodynamics and inner magnetosphere dynamics. *Journal of Geophysical Research: Space Physics*, **2017**, 122, 5321-5338	2.6	21
209	Daytime zonal drifts in the ionospheric 150 km and E regions estimated using EAR observations. *Journal of Geophysical Research: Space Physics*, **2017**, 122, 9045-9055	2.6	3
208	Ion Velocity Measurements for the Ionospheric Connections Explorer. *Space Science Reviews*, **2017**, 212, 615-629	7.5	22
207	Longitude and Hemispheric Dependencies in Storm-Enhanced Density. *Geophysical Monograph Series*, **2016**, 59-70	1.1	3
206	Earth ion upflow associated with polar cap patches: Global and in situ observations. *Geophysical Research Letters*, **2016**, 43, 1845-1853	4.9	28

205	Plasma and convection reversal boundary motions in the high-latitude ionosphere. *Journal of Geophysical Research: Space Physics*, **2016**, 121, 5752-5763	2.6	4
204	Advances in Understanding Ionospheric Convection at High Latitudes. *Geophysical Monograph Series*, **2016**, 49-59	1.1	3
203	Automated identification of discrete, lightning-generated, multiple-dispersed whistler waves in C/NOFS-VEFI very low frequency observations. *Radio Science*, **2016**, 51, 1547-1569	1.4	3
202	Duskside enhancement of equatorial zonal electric field response to convection electric fields during the St. Patrick Day storm on 17 March 2015. *Journal of Geophysical Research: Space Physics*, **2016**, 121, 538-548	2.6	74
201	Response of the ionospheric convection reversal boundary at high latitudes to changes in the interplanetary magnetic field. *Journal of Geophysical Research: Space Physics*, **2015**, 120, 5022-5034	2.6	14
200	Modeling subauroral polarization streams during the 17 March 2013 storm. *Journal of Geophysical Research: Space Physics*, **2015**, 120, 1738-1750	2.6	36
199	Unique latitudinal shape of ion upper transition height (HT) surface during deep solar minimum (2008–2009). *Journal of Geophysical Research: Space Physics*, **2015**, 120, 1419-1427	2.6	2
198	Aspects of Coupling Processes in the Ionosphere and Thermosphere. *Geophysical Monograph Series*, **2014**, 161-169	1.1	2
197	A method to estimate whistler wave vector from polarization using three-component electric field data. *Radio Science*, **2014**, 49, 131-145	1.4	5
196	Solar filament impact on 21 January 2005: Geospace consequences. *Journal of Geophysical Research: Space Physics*, **2014**, 119, 5401-5448	2.6	18
195	Vertical ExB drifts from radar and C/NOFS observations in the Indian and Indonesian sectors: Consistency of observations and model. *Journal of Geophysical Research: Space Physics*, **2014**, 119, 3777-3788	2.6	15
194	Identifying equatorial ionospheric irregularities using in situ ion drifts. *Annales Geophysicae*, **2014**, 32, 421-429	2	10
193	Radio-tomographic images of postmidnight equatorial plasma depletions. *Geophysical Research Letters*, **2014**, 41, 13-19	4.9	7
192	Topside signature of medium-scale traveling ionospheric disturbances. *Annales Geophysicae*, **2014**, 32, 959-965	2	21
191	Topside equatorial zonal ion velocities measured by C/NOFS during rising solar activity. *Annales Geophysicae*, **2014**, 32, 69-75	2	16
190	Global Modeling of Storm-Time Thermospheric Dynamics and Electrodynamics. *Geophysical Monograph Series*, **2013**, 187-200	1.1	17
189	Impact of the Neutral Wind Dynamo on the Development of the Region 2 Dynamo. *Geophysical Monograph Series*, **2013**, 179-186	1.1	2
188	Daytime altitude variations of the equatorial, topside magnetic field-aligned ion transport at solar minimum. *Journal of Geophysical Research: Space Physics*, **2013**, 118, 3568-3575	2.6	6

187	Low latitude thermospheric responses to magnetic storms. *Journal of Geophysical Research: Space Physics*, **2013**, 118, 3866-3876	2.6	15
186	Low- and Middle-Latitude Ionospheric Dynamics Associated with Magnetic Storms. *Geophysical Monograph Series*, **2013**, 51-61	1.1	10
185	Storm time meridional wind perturbations in the equatorial upper thermosphere. *Journal of Geophysical Research: Space Physics*, **2013**, 118, 2756-2764	2.6	4
184	Specifying the equatorial ionosphere using CINDI on C/NOFS, COSMIC, and data interpolating empirical orthogonal functions. *Journal of Geophysical Research: Space Physics*, **2013**, 118, 6706-6722	2.6	5
183	In situ irregularity identification and scintillation estimation using wavelets and CINDI on C/NOFS. *Radio Science*, **2013**, 48, 388-395	1.4	5
182	Reply to Tsurutani et al.Q comment on "Storming the Bastille: the effect of electric fields on the ionospheric F-layer" by Rishbeth et al. (2010). *Annales Geophysicae*, **2013**, 31, 151-152	2	8
181	Exploring the role of ionospheric drivers during the extreme solar minimum of 2008. *Annales Geophysicae*, **2013**, 31, 2147-2156	2	15
180	Measurements of Thermal Ion Drift Velocity and Temperature Using Planar Sensors. *Geophysical Monograph Series*, **2013**, 61-71	1.1	53
179	The influence of hemispheric asymmetries on field-aligned ion drifts at the geomagnetic equator. *Geophysical Research Letters*, **2012**, 39, n/a-n/a	4.9	14
178	Characteristics of low-latitude ionospheric depletions and enhancements during solar minimum. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		23
177	A modeling study of the longitudinal dependence of storm time midlatitude dayside total electron content enhancements. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		42
176	Three-dimensional numerical simulations of equatorial spread F: Results and observations in the Pacific sector. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		19
175	Equatorial longitude and local time variations of topside magnetic field-aligned ion drifts at solar minimum. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		13
174	Response of the equatorial topside ionosphere to 27-day variations in solar EUV input during a low solar activity period using C/NOFS. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		6
173	Ground and Space-Based Measurement of Rocket Engine Burns in the Ionosphere. *IEEE Transactions on Plasma Science*, **2012**, 40, 1267-1286	1.3	40
172	On TIE-GCM simulation of the evening equatorial plasma vortex. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		29
171	The role of zonal winds in the production of a pre-reversal enhancement in the vertical ion drift in the low latitude ionosphere. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		39
170	Ion drift meter calibration and photoemission correction for the C/NOFS satellite. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		17

169	Onset conditions of bubbles and blobs: A case study on 2 March 2009. *Geophysical Research Letters*, **2011**, 38, n/a-n/a	4.9	22
168	C/NOFS observations of the equatorial ionospheric electric field response to the 2009 major sudden stratospheric warming event. *Journal of Geophysical Research*, **2011**, 116, n/a-n/a		29
167	Observations of low-latitude plasma density enhancements and their associated plasma drifts. *Journal of Geophysical Research*, **2011**, 116, n/a-n/a		21
166	Observations of quiet time vertical ion drift in the equatorial ionosphere during the solar minimum period of 2009. *Journal of Geophysical Research*, **2011**, 116, n/a-n/a		84
165	Latitude and local time variations of topside magnetic field-aligned ion drifts at solar minimum. *Journal of Geophysical Research*, **2011**, 116, n/a-n/a		12
164	Topside equatorial ionospheric density and composition during and after extreme solar minimum. *Journal of Geophysical Research*, **2011**, 116, n/a-n/a		34
163	Superrotation of the ionosphere and quiet time zonal ion drifts at low and middle latitudes observed by Republic of China Satellite-1 (ROCSAT-1). *Journal of Geophysical Research*, **2011**, 116, n/a-n/a		9
162	Response of the topside ionosphere to high-speed solar wind streams. *Journal of Geophysical Research*, **2011**, 116, n/a-n/a		9
161	Storming the Bastille: the effect of electric fields on the ionospheric F-layer. *Annales Geophysicae*, **2010**, 28, 977-981	2	34
160	A numerical study of geometry dependent errors in velocity, temperature, and density measurements from single grid planar retarding potential analyzers. *Physics of Plasmas*, **2010**, 17, 082901	2.1	7
159	Longitudinal and seasonal variations of the equatorial ionospheric ion density and eastward drift velocity in the dusk sector. *Journal of Geophysical Research*, **2010**, 115, n/a-n/a		27
158	Ion temperature and density relationships measured by CINDI from the C/NOFS spacecraft during solar minimum. *Journal of Geophysical Research*, **2010**, 115, n/a-n/a		28
157	Mapping the duskside topside ionosphere with CINDI and DMSP. *Journal of Geophysical Research*, **2010**, 115, n/a-n/a		1
156	A comparison of ionospheric O+/light-ion transition height derived from ion-composition measurements and the topside ion density profiles over equatorial latitudes. *Geophysical Research Letters*, **2010**, 37, n/a-n/a	4.9	7
155	Low-latitude measurements of neutral thermospheric helium dominance near 400 km during extreme solar minimum. *Journal of Geophysical Research*, **2010**, 115, n/a-n/a		11
154	Medium-scale equatorial plasma irregularities observed by Coupled Ion-Neutral Dynamics Investigation sensors aboard the Communication Navigation Outage Forecast System in a prolonged solar minimum. *Journal of Geophysical Research*, **2010**, 115, n/a-n/a		30
153	Response of the topside ionosphere to recurrent geomagnetic activity. *Journal of Geophysical Research*, **2010**, 115, n/a-n/a		17
152	Quiet time meridional (vertical) ion drifts at low and middle latitudes observed by ROCSAT-1. *Journal of Geophysical Research*, **2010**, 115, n/a-n/a		15

151	WN4 effect on longitudinal distribution of different ion species in the topside ionosphere at low latitudes by means of DEMETER, DMSP-F13 and DMSP-F15 data. *Annales Geophysicae*, **2009**, 27, 2893-2902	2	21
150	Influences of geomagnetic fields on longitudinal variations of vertical plasma drifts in the presunset equatorial topside ionosphere. *Journal of Geophysical Research*, **2009**, 114, n/a-n/a		25
149	Behavior of the O+/H+ transition height during the extreme solar minimum of 2008. *Geophysical Research Letters*, **2009**, 36,	4.9	105
148	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
147	Stormtime measurements of topside ionospheric upflow from Defense Meteorological Satellite Program. *Journal of Geophysical Research*, **2009**, 114, n/a-n/a		6
146	Formation of a plasma depletion shell in the equatorial ionosphere. *Journal of Geophysical Research* , **2009**, 114, n/a-n/a		59
145	Electrostatic potential drop across the ionospheric signature of the low-latitude boundary layer. *Journal of Geophysical Research*, **2009**, 114, n/a-n/a		13
144	Storm time signatures of the ionospheric zonal ion drift at middle latitudes. *Journal of Geophysical Research*, **2009**, 114, n/a-n/a		19
143	Storm time density enhancements in the middle-latitude dayside ionosphere. *Journal of Geophysical Research*, **2009**, 114, n/a-n/a		88
142	A statistical analysis of systematic errors in temperature and ram velocity estimates from satellite-borne retarding potential analyzers. *Physics of Plasmas*, **2009**, 16, 052901	2.1	9
141	Longitudinal variations of electron temperature and total ion density in the sunset equatorial topside ionosphere. *Geophysical Research Letters*, **2008**, 35,	4.9	59
140	Midlatitude Ionospheric Dynamics and Disturbances: Introduction. *Geophysical Monograph Series*, **2008**, 1-7	1.1	4
139	Ionospheric storm time dynamics as seen by GPS tomography and in situ spacecraft observations. *Journal of Geophysical Research*, **2008**, 113, n/a-n/a		21
138	Errors in ram velocity and temperature measurements inferred from satellite-borne retarding potential analyzers. *Physics of Plasmas*, **2008**, 15, 062905	2.1	14
137	The Mid-Latitude Trough Revisited. *Geophysical Monograph Series*, **2008**, 25-33	1.1	18
136	The Linkage between the Ring Current and the Ionosphere System. *Geophysical Monograph Series*, **2008**, 135-143	1.1	8
135	A Digest of Electrodynamic Coupling and Layer Instabilities in the Nighttime Midlatitude Ionosphere. *Geophysical Monograph Series*, **2008**, 283-290	1.1	2
134	Longitudinal variations in the equatorial vertical drift in the topside ionosphere. *Journal of Geophysical Research*, **2007**, 112, n/a-n/a		96

133	Variations in the low- and middle-latitude topside ion concentration observed by DMSP during superstorm events. *Journal of Geophysical Research*, **2007**, 112, n/a-n/a		32
132	Characteristics of high-latitude vertical plasma flow from the Defense Meteorological Satellite Program. *Journal of Geophysical Research*, **2006**, 111,		15
131	Seasonal and latitudinal distributions of the dominant light ions at 600 km topside ionosphere from 1999 to 2002. *Journal of Geophysical Research*, **2005**, 110,		14
130	Comparison of topside equatorial parameters derived from DMSP, Jicamarca, and Another Model of the Ionosphere (SAMI2). *Journal of Geophysical Research*, **2005**, 110,		2
129	Characteristics of ion velocity structure at high latitudes during steady southward interplanetary magnetic field conditions. *Journal of Geophysical Research*, **2005**, 110,		26
128	Seasonal and longitudinal variation of large-scale topside equatorial plasma depletions. *Journal of Geophysical Research*, **2005**, 110,		60
127	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
126	Variations of thermospheric composition according to AE-C data and CTIP modelling. *Annales Geophysicae*, **2004**, 22, 441-452	2	11
125	Supercooled ion temperatures observed in the topside ionosphere at dawn meridian during storm periods. *Journal of Geophysical Research*, **2004**, 109,		9
124	Observed saturation of the ionospheric polar cap potential during the 31 March 2001 storm. *Geophysical Research Letters*, **2003**, 30,	4.9	72
123	Plasma density enhancements associated with equatorial spread F: ROCSAT-1 and DMSP observations. *Journal of Geophysical Research*, **2003**, 108,		59
122	Observations of shock impact, disturbance dynamo effect, and a midlatitude large-density depletion at 600 km altitude on the 17 April 2002 storm day. *Journal of Geophysical Research*, **2003**, 108,		12
121	High-latitude plasma outflow as measured by the DMSP spacecraft. *Journal of Geophysical Research* , **2003**, 108,		25
120	A modified CTIP model and comparisons with DMSP satellite data. *Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences*, **2003**, 361, 139-142	3	2
119	Observation of a large density dropout across the magnetic field at 600 km altitude during the 6[illegible] April 2000 magnetic storm. *Journal of Geophysical Research*, **2002**, 107, SIA 18-1		34
118	Interplanetary magnetic field control of theta aurora development. *Journal of Geophysical Research* , **2002**, 107, SIA 4-1		34
117	Relative solar and auroral contribution to the polar F region: Implications for National Space Weather Program. *Journal of Geophysical Research*, **2002**, 107, SIA 15-1		6
116	Ion and neutral motions observed in the winter polar upper atmosphere. *Journal of Geophysical Research*, **2002**, 107, SIA 17-1-SIA 17-7		14

115	Longitudinal ionospheric effects in the South Atlantic evening sector during solar maximum. *Journal of Geophysical Research*, **2002**, 107, SIA 3-1		1
114	Storm time plasma irregularities in the pre-dawn hours observed by the low-latitude ROCSAT-1 satellite at 600 km altitude. *Geophysical Research Letters*, **2001**, 28, 685-688	4.9	26
113	ROCSAT 1 ionospheric plasma and electrodynamics instrument observations of equatorial spread F: An early transitional scale result. *Journal of Geophysical Research*, **2001**, 106, 29153-29159		39
112	A modelling study of the latitudinal variations in the nighttime plasma temperatures of the equatorial topside ionosphere during northern winter at solar maximum. *Annales Geophysicae*, **2000**, 18, 1435-1446	2	12
111	Transformation of high-latitude ionospheric F region patches into blobs during the March 21, 1990, storm. *Journal of Geophysical Research*, **2000**, 105, 5215-5230		58
110	Magnetospheric multiscale and global electrodynamics missions. *Geophysical Monograph Series*, **1999**, 225-235	1.1	1
109	Regional, scale size, and interplanetary magnetic field variability of magnetic field and ion drift structures in the high-latitude ionosphere. *Journal of Geophysical Research*, **1999**, 104, 199-212		3
108	On relationships between horizontal velocity structure and thermal ion upwellings at high latitudes. *Geophysical Research Letters*, **1999**, 26, 1829-1832	4.9	12
107	Electron temperatures during rapid subauroral ion drift events. *Annales Geophysicae*, **1998**, 16, 450-459	2	21
106	Seasonal and universal time distribution of patches in the northern and southern polar caps. *Journal of Geophysical Research*, **1998**, 103, 29229-29237		28
105	Global distribution of density irregularities in the equatorial ionosphere. *Journal of Geophysical Research*, **1998**, 103, 407-417		138
104	Spatial distribution of ionospheric plasma and field structures in the high-latitude F region. *Journal of Geophysical Research*, **1998**, 103, 6955-6968		37
103	Analysis of the ionospheric cross polar cap potential drop using DMSP data during the National Space Weather Program study period. *Journal of Geophysical Research*, **1998**, 103, 26337-26347		34
102	Equatorial density irregularity structures at intermediate scales and their temporal evolution. *Journal of Geophysical Research*, **1998**, 103, 3969-3981		32
101	Structure and occurrence of polar ionization patches. *Journal of Geophysical Research*, **1998**, 103, 2201-2208		37
100	Evolution of the global aurora during positive IMF Bz and varying IMF By conditions. *Journal of Geophysical Research*, **1997**, 102, 17489-17497		50
99	William B. Hanson 1923 1994: A retrospective. *Journal of Geophysical Research*, **1997**, 102, 2035-2038		1
98	Solar activity variations in the composition of the low-latitude topside ionosphere. *Journal of Geophysical Research*, **1997**, 102, 295-305		33

97	Structures in ionospheric number density and velocity associated with polar cap ionization patches. *Journal of Geophysical Research*, **1997**, 102, 307-318		43
96	Fast equatorial bubbles. *Journal of Geophysical Research*, **1997**, 102, 2039-2045		28
95	How wide in magnetic local time is the cusp? An event study. *Journal of Geophysical Research*, **1997**, 102, 4765-4776		25
94	Longitude variations in ion composition in the morning and evening topside equatorial ionosphere near solar minimum. *Journal of Geophysical Research*, **1996**, 101, 7951-7960		45
93	The Nightside Ionosphere: Ionospheric Convection during an Isolated Substorm on October 21, 1981. *Journal of Geomagnetism and Geoelectricity*, **1996**, 48, 915-923		
92	Response time of the polar ionospheric convection pattern to changes in the north-south direction of the IMF. *Geophysical Research Letters*, **1995**, 22, 631-634	4.9	63
91	Global equatorial ionospheric vertical plasma drifts measured by the AE-E satellite. *Journal of Geophysical Research*, **1995**, 100, 5769		153
90	Effects of zonal winds and metallic ions on the behavior of intermediate layers. *Journal of Geophysical Research*, **1995**, 100, 7829		15
89	High-latitude ionospheric convection pattern during steady northward interplanetary magnetic field. *Journal of Geophysical Research*, **1995**, 100, 14537		28
88	Summary of field-aligned Poynting flux observations from DE 2. *Geophysical Research Letters*, **1995**, 22, 1861-1864	4.9	39
87	Interpretation and modeling of the high-latitude electromagnetic energy flux. *Journal of Geophysical Research*, **1995**, 100, 19715		75
86	Adaptive identification and characterization of polar ionization patches. *Journal of Geophysical Research*, **1995**, 100, 23819		52
85	Four cells or two? Are four convection cells really necessary?. *Journal of Geophysical Research*, **1994**, 99, 3955		21
84	Comparison of low-latitude ion and neutral zonal drifts using DE 2 data. *Journal of Geophysical Research*, **1994**, 99, 341		46
83	DMSP F8 observations of the mid-latitude and low-latitude topside ionosphere near solar minimum. *Journal of Geophysical Research*, **1994**, 99, 3817		38
82	Field-aligned Poynting Flux observations in the high-latitude ionosphere. *Journal of Geophysical Research*, **1994**, 99, 11417		38
81	Coupling of microprocesses and macroprocesses due to velocity shear: An application to the low-altitude ionosphere. *Journal of Geophysical Research*, **1994**, 99, 8873		147
80	Modeling daytime F layer patches over Sondrestrom. *Radio Science*, **1994**, 29, 249-268	1.4	46

79	Ground-based studies of ionospheric convection associated with substorm expansion. *Journal of Geophysical Research*, **1994**, 99, 19451		34
78	Thermal Ion Drifts in the Dayside High-Latitude Ionosphere **1994**, 43-57		2
77	A proposed production model of rapid subauroral ion drifts and their relationship to substorm evolution. *Journal of Geophysical Research*, **1993**, 98, 6069-6078		176
76	Effects of electrical coupling on equatorial ionospheric plasma motions: When is the F region a dominant driver in the low-latitude dynamo?. *Journal of Geophysical Research*, **1993**, 98, 6033-6037		58
75	Modeling polar cap F-region patches using time varying convection. *Geophysical Research Letters*, **1993**, 20, 1783-1786	4.9	104
74	A Comparison of in situ measurements of and from Dynamics Explorer 2. *Journal of Geophysical Research*, **1993**, 98, 21501-21516		20
73	Field-aligned drifts in subauroral ion drift events. *Journal of Geophysical Research*, **1993**, 98, 21493-21499		39
72	Ion composition of the topside equatorial ionosphere during solar minimum. *Journal of Geophysical Research*, **1992**, 97, 4299		34
71	Upflowing ionospheric ions in the auroral region. *Journal of Geophysical Research*, **1992**, 97, 16855		29
70	Response of the ionospheric convection pattern to a rotation of the interplanetary magnetic field on January 14, 1988. *Journal of Geophysical Research*, **1992**, 97, 19449		17
69	East-west ion drifts at mid-latitudes observed by Dynamics Explorer 2. *Journal of Geophysical Research*, **1992**, 97, 19461		58
68	Three-dimensional ionospheric plasma circulation. *Journal of Geophysical Research*, **1992**, 97, 13903		18
67	Dynamics Explorer Measurements of Particles, Fields, and Plasma Drifts Over a Horse-Collar Auroral Pattern.. *Journal of Geomagnetism and Geoelectricity*, **1992**, 44, 1225-1237		5
66	A morphological study of vertical ionospheric flows in the high-latitude F region. *Journal of Geophysical Research*, **1991**, 96, 3627		92
65	The ionospheric signatures of rapid subauroral ion drifts. *Journal of Geophysical Research*, **1991**, 96, 5785		173
64	Coordinated radar and optical measurements of stable auroral arcs at the polar cap boundary. *Journal of Geophysical Research*, **1991**, 96, 17847		13
63	The High Latitude Ionospheric Convection Pattern. *Journal of Geomagnetism and Geoelectricity*, **1991**, 43, 245-257		3
62	Model of the high-latitude ionospheric convection pattern during southward interplanetary magnetic field using DE 2 data. *Journal of Geophysical Research*, **1990**, 95, 2333		76

61	Magnetic field-aligned coupling effects on ionospheric plasma structure. *Journal of Geophysical Research*, **1990**, 95, 7995		24
60	Distributions of He+ at middle and equatorial latitudes during solar maximum. *Journal of Geophysical Research*, **1990**, 95, 10313		48
59	Ionospheric flows associated with a transpolar arc. *Journal of Geophysical Research*, **1990**, 95, 21169		24
58	Polar cap deflation during magnetospheric substorms. *Journal of Geophysical Research*, **1989**, 94, 3785		28
57	Combining electric field and aurora observations from DE 1 and 2 with ground magnetometer records to estimate ionospheric electromagnetic quantities. *Journal of Geophysical Research*, **1989**, 94, 6723-6738		17
56	Low-latitude zonal and vertical ion drifts seen by DE 2. *Journal of Geophysical Research*, **1989**, 94, 6751-6761		82
55	Plasma and field properties of suprathermal electron bursts. *Journal of Geophysical Research*, **1989**, 94, 12031		11
54	Distribution of convection potential around the polar cap boundary as a function of the interplanetary magnetic field. *Journal of Geophysical Research*, **1989**, 94, 13447		39
53	Dayside observations of thermal-ion upwellings at 800-km Altitude: An ionospheric signature of the cleft ion fountain. *Journal of Geophysical Research*, **1989**, 94, 15277		53
52	Studies of ionospheric plasma and electrodynamics and their application to ionosphere-magnetosphere coupling. *Reviews of Geophysics*, **1988**, 26, 317	23.1	26
51	Origin of density enhancements in the winter polar cap ionosphere. *Radio Science*, **1988**, 23, 513-519	1.4	100
50	Thermospheric dynamics during November 21–22, 1981: Dynamics Explorer measurements and thermospheric general circulation model predictions. *Journal of Geophysical Research*, **1988**, 93, 209		28
49	On the relationship between dynamics of the polar thermosphere and morphology of the aurora: Global-scale observations from Dynamics Explorers 1 and 2. *Journal of Geophysical Research*, **1988**, 93, 2675		47
48	Global and local Joule heating effects seen by DE 2. *Journal of Geophysical Research*, **1988**, 93, 7551		30
47	Coherent mesoscale convection patterns during northward interplanetary magnetic field. *Journal of Geophysical Research*, **1988**, 93, 14501		34
46	A model for multiple throat structures in the polar cap flow entry region. *Journal of Geophysical Research*, **1988**, 93, 9785		33
45	E and F region study of the evening sector auroral oval: A Chatanika/Dynamics Explorer 2/NOAA 6 comparison. *Journal of Geophysical Research*, **1987**, 92, 2477		44
44	Ionospheric convection signatures and magnetic field topology. *Journal of Geophysical Research*, **1987**, 92, 12352		18

43	Electrodynamics and plasma processes in the ionosphere. *Reviews of Geophysics*, **1987**, 25, 419	23.1	6
42	Observations of ionospheric magnetospheric coupling: DE and Chatanika coincidences. *Journal of Geophysical Research*, **1986**, 91, 5803		18
41	Rocket and satellite observations of electric fields and ion convection in the dayside auroral ionosphere. *Canadian Journal of Physics*, **1986**, 64, 1417-1425	1.1	9
40	Multiple auroral arcs and Birkeland currents: Evidence for plasma sheet boundary waves. *Geophysical Research Letters*, **1986**, 13, 805-808	4.9	27
39	On the current-voltage relationship of the magnetospheric generator at intermediate spatial scales. *Geophysical Research Letters*, **1986**, 13, 495-498	4.9	42
38	The theta aurora. *Journal of Geophysical Research*, **1986**, 91, 3177		238
37	Ionospheric convection signatures observed by De 2 during northward interplanetary magnetic field. *Journal of Geophysical Research*, **1986**, 91, 5817		88
36	The geomagnetic mass spectrometer□mass and energy dispersions of ionospheric ion flows into the magnetosphere. *Nature*, **1985**, 316, 612-613	50.4	34
35	The HiLat satellite mission. *Radio Science*, **1985**, 20, 416-424	1.4	16
34	Neutral motions in the polar thermosphere for northward interplanetary magnetic field. *Geophysical Research Letters*, **1985**, 12, 159-162	4.9	65
33	Electrical coupling effects on the temporal evolution of F layer plasma structure. *Journal of Geophysical Research*, **1985**, 90, 437-445		24
32	IMF By -dependent plasma flow and Birkeland currents in the dayside magnetosphere: 1. Dynamics Explorer observations. *Journal of Geophysical Research*, **1985**, 90, 1577		189
31	Universal time dependence of nighttime F region densities at high latitudes. *Journal of Geophysical Research*, **1985**, 90, 4319		39
30	Thermospheric and ionospheric structure of the southern hemisphere polar cap on October 21, 1981, as determined from Dynamics Explorer 2 satellite data. *Journal of Geophysical Research*, **1985**, 90, 6553		28
29	A Sun-aligned arc observed by DMSP and AE-C. *Journal of Geophysical Research*, **1985**, 90, 9697		42
28	Interplanetary Magnetic Field Effects on High Latitude Ionospheric Convection **1985**, 293-303		4
27	Velocity spike at the poleward edge of the auroral zone. *Journal of Geophysical Research*, **1984**, 89, 1627		18
26	The effects of interplanetary magnetic field orientation on dayside high-latitude ionospheric convection. *Journal of Geophysical Research*, **1984**, 89, 2873		249

25	Particle acceleration parallel and perpendicular to the magnetic field observed by DE-2. *Journal of Geophysical Research*, **1984**, 89, 3893		80
24	Ion-neutral coupling in the high-latitude F region: Evaluation of ion heating terms from Dynamics Explorer 2. *Journal of Geophysical Research*, **1984**, 89, 7495-7508		136
23	MITHRAS: A brief description. *Radio Science*, **1984**, 19, 665-673	1.4	13
22	The HILAT program. *Eos*, **1983**, 64, 163	1.5	15
21	Multistation measurements of high-latitude ionospheric convection. *Journal of Geophysical Research*, **1983**, 88, 10111		45
20	The Low Altitude Cleft: Plasma Entry and Magnetospheric Topology **1983**, 57-72		5
19	Plasma injection and transport in the mid-altitude polar cusp. *Geophysical Research Letters*, **1982**, 9, 921-924	4.9	127
18	Dynamics Explorer observations of equatorial spread F: Evidence for drift waves. *Geophysical Research Letters*, **1982**, 9, 993-996	4.9	16
17	A model of the high-latitude ionospheric convection pattern. *Journal of Geophysical Research*, **1982**, 87, 6339		462
16	The polar ionosphere. *Reviews of Geophysics*, **1982**, 20, 567	23.1	18
15	A feature of the behavior of He+ in the nightside high-latitude ionosphere during equinox. *Journal of Geophysical Research*, **1981**, 86, 59		17
14	Auroral arc electrodynamic parameters measured by AE-C and the Chatanika Radar. *Journal of Geophysical Research*, **1981**, 86, 4671-4685		65
13	Observational evidence for a boundary layer source of dayside region 1 field-aligned currents. *Journal of Geophysical Research*, **1981**, 86, 5577		91
12	Cusp region particle precipitation and ion convection for northward interplanetary magnetic field. *Geophysical Research Letters*, **1980**, 7, 393-396	4.9	57
11	Electric Fields and Electrostatic Potentials in the High Latitude Ionosphere **1980**, 281-291		1
10	Rapid subauroral ion drifts observed by Atmosphere Explorer C. *Geophysical Research Letters*, **1979**, 6, 657-660	4.9	213
9	IMF Changes and Polar-Cap Electric Fields and Currents. *Astrophysics and Space Science Library*, **1979**, 47-62	0.3	8
8	Dayside auroral arcs and convection. *Geophysical Research Letters*, **1978**, 5, 391-394	4.9	82

7	Ion temperature troughs and interhemispheric transport observed in the equatorial ionosphere. *Journal of Geophysical Research*, **1978**, 83, 3683		26
6	Ion convection and the formation of the mid-latitude F region ionization trough. *Journal of Geophysical Research*, **1978**, 83, 4255		161
5	Measurement of magnetic field aligned potential differences using high resolution conjugate photoelectron energy spectra. *Geophysical Research Letters*, **1977**, 4, 373-376	4.9	18
4	Characteristics of auroral electron acceleration regions observed by Atmosphere Explorer C. *Journal of Geophysical Research*, **1976**, 81, 2223-2230		76
3	Ion convection velocity reversals in the dayside cleft. *Journal of Geophysical Research*, **1976**, 81, 3803-3809		182
2	Properties of spikelike shear flow reversals observed in the auroral plasma by Atmosphere Explorer C. *Journal of Geophysical Research*, **1976**, 81, 3886-3896		54
1	Atmospheric lunar tide in the low latitude thermosphere-ionosphere. *Geophysical Research Letters*,	4.9	1