William K Peterson

List of Publications by Citations

233 papers	9,782 citations	52 h-index	90 g-index
251 ext. papers	10,284 ext. citations	3.7 avg, IF	5.14 L-index

#	Paper	IF	Citations
233	FAST satellite observations of large-amplitude solitary structures. *Geophysical Research Letters*, **1998**, 25, 2041-2044	4.9	410
232	The Mars Atmosphere and Volatile Evolution (MAVEN) Mission. *Space Science Reviews*, **2015**, 195, 3-48	7.5	405
231	The plasma sheet boundary layer. *Journal of Geophysical Research*, **1984**, 89, 1553		336
230	Measurements of Secondary-Electron Spectra Produced by Electron Impact Ionization of a Number of Simple Gases. *Journal of Chemical Physics*, **1971**, 55, 4100-4106	3.9	329
229	Tables of secondary-electron-production cross sections. *Atomic Data and Nuclear Data Tables*, **1972**, 4, 209-253	2	265
228	The theta aurora. *Journal of Geophysical Research*, **1986**, 91, 3177		238
227	FAST observations in the downward auroral current region: Energetic upgoing electron beams, parallel potential drops, and ion heating. *Geophysical Research Letters*, **1998**, 25, 2017-2020	4.9	236
226	Energetic auroral and polar ion outflow at DE 1 altitudes: Magnitude, composition, magnetic activity dependence, and long-term variations. *Journal of Geophysical Research*, **1985**, 90, 8417		226
225	Polar spacecraft based comparisons of intense electric fields and Poynting flux near and within the plasma sheet-tail lobe boundary to UVI images: An energy source for the aurora. *Journal of Geophysical Research*, **2000**, 105, 18675-18692		218
224	FAST satellite observations of electric field structures in the auroral zone. *Geophysical Research Letters*, **1998**, 25, 2025-2028	4.9	218
223	Ion streams in the magnetotail. *Journal of Geophysical Research*, **1981**, 86, 4639-4648		167
222	FAST satellite wave observations in the AKR source region. *Geophysical Research Letters*, **1998**, 25, 2061-2064	4.9	158
221	Electron density depletions in the nightside auroral zone. *Journal of Geophysical Research*, **1988**, 93, 1871		156
220	Comparisons of Polar satellite observations of solitary wave velocities in the plasma sheet boundary and the high altitude cusp to those in the auroral zone. *Geophysical Research Letters*, **1999**, 26, 425-428	4.9	153
219	Distribution of upflowing ionospheric ions in the high-altitude polar cap and auroral ionosphere. *Journal of Geophysical Research*, **1984**, 89, 5507		143
218	Loss of the Martian atmosphere to space: Present-day loss rates determined from MAVEN observations and integrated loss through time. *Icarus*, **2018**, 315, 146-157	3.8	136
217	MAVEN observations of the response of Mars to an interplanetary coronal mass ejection. *Science*, **2015**, 350, aad0210	33.3	131

216	Energetic ion composition of the plasma sheet. *Journal of Geophysical Research*, **1981**, 86, 761		131
215	Funnel-shaped, low-frequency equatorial waves. *Journal of Geophysical Research*, **1992**, 97, 14967		129
214	Long-term (solar cycle) and seasonal variations of upflowing ionospheric ion events at DE 1 altitudes. *Journal of Geophysical Research*, **1985**, 90, 6395		129
213	Escape of suprathermal O+ ions in the polar cap. *Journal of Geophysical Research*, **1985**, 90, 1619		127
212	Ionospheric mass ejection in response to a CME. *Geophysical Research Letters*, **1999**, 26, 2339-2342	4.9	124
211	The polar ionosphere as a source of energetic magnetospheric plasma. *Geophysical Research Letters*, **1982**, 9, 941-944	4.9	115
210	The Toroidal Imaging Mass-Angle Spectrograph (TIMAS) for the polar mission. *Space Science Reviews*, **1995**, 71, 497-530	7.5	106
209	The polar wind: Recent observations. *Journal of Atmospheric and Solar-Terrestrial Physics*, **2007**, 69, 1936-1983		104
208	Origin of the plasma in a cross-polar cap auroral feature (theta aurora). *Journal of Geophysical Research*, **1984**, 89, 6729		104
207	Ion cyclotron resonance heated conics: Theory and observations. *Journal of Geophysical Research*, **1990**, 95, 3959		98
206	FAST observations of VLF waves in the auroral zone: Evidence of very low plasma densities. *Geophysical Research Letters*, **1998**, 25, 2065-2068	4.9	96
205	HEUVAC: A new high resolution solar EUV proxy model. *Advances in Space Research*, **2006**, 37, 315-322	2.4	92
204	Timing of magnetic reconnection initiation during a global magnetospheric substorm onset. *Geophysical Research Letters*, **2002**, 29, 43-1-43-4	4.9	83
203	Quantitative Parametrization of Energetic Ionospheric Ion Outflow. *Geophysical Monograph Series*, **1988**, 211-217	1.1	82
202	Simulation of energetic particle injections associated with a substorm on August 27, 2001. *Geophysical Research Letters*, **2003**, 30, 4-1-4-4	4.9	81
201	Observations of two types of Pc 1□ pulsations in the outer dayside magnetosphere. *Journal of Geophysical Research*, **2002**, 107, SMP 20-1-SMP 20-20		80
200	Direct evidence for two-stage (bimodal) acceleration of ionospheric ions. *Journal of Geophysical Research*, **1984**, 89, 10779		79
199	Early MAVEN Deep Dip campaign reveals thermosphere and ionosphere variability. *Science*, **2015**, 350, aad0459	33.3	77

198	Ion heating by broadband low-frequency waves in the cusp/cleft. *Journal of Geophysical Research*, **1990**, 95, 20809		77
197	Spatial structure and gradients of ion beams observed by FAST. *Geophysical Research Letters*, **1998**, 25, 2021-2024	4.9	72
196	The auroral current circuit and field-aligned currents observed by FAST. *Geophysical Research Letters*, **1998**, 25, 2033-2036	4.9	71
195	Cusp field-aligned currents and ion outflows. *Journal of Geophysical Research*, **2000**, 105, 21129-21141		65
194	High resolution daytime photoelectron energy spectra from AE-E. *Geophysical Research Letters*, **1976**, 3, 129-131	4.9	65
193	The origins of the plasma in the distant plasma sheet. *Journal of Geophysical Research*, **1982**, 87, 10420		64
192	Role of plasma waves in Mars' atmospheric loss. *Geophysical Research Letters*, **2006**, 33,	4.9	63
191	Energetic ion composition in the subsolar magnetopause and boundary layer. *Journal of Geophysical Research*, **1982**, 87, 2139		62
190	Filamentary structures in the magnetotail lobes. *Journal of Geophysical Research*, **1987**, 92, 2349		60
189	Large amplitude solitary waves in and near the Earth magnetosphere, magnetopause and bow shock: Polar and Cluster observations. *Nonlinear Processes in Geophysics*, **2003**, 10, 13-26	2.9	59
188	Solar wind control of Earth's H+ and O+ outflow rates in the 15-eV to 33-keV energy range. *Journal of Geophysical Research*, **2004**, 109,		59
187	Plasmaspheric depletion and refilling associated with the September 25, 1998 magnetic storm observed by ground magnetometers at L = 2. *Geophysical Research Letters*, **2000**, 27, 633-636	4.9	55
186	Electron modulation and ion cyclotron waves observed by FAST. *Geophysical Research Letters*, **1998**, 25, 2045-2048	4.9	55
185	Measurement of low-energy electrons in the day airglow and day side auroral zone from Atmosphere Explorer C. *Journal of Geophysical Research*, **1975**, 80, 3934-3944		55
184	XUV Photometer System (XPS): Improved Solar Irradiance Algorithm Using CHIANTI Spectral Models. *Solar Physics*, **2008**, 250, 235-267	2.6	53
183	Coordinated rocket and satellite measurements of an auroral event, 1, Satellite observations and analysis. *Journal of Geophysical Research*, **1977**, 82, 2250-2258		53
182	Solar cycle variation of some mass dependent characteristics of upflowing beams of terrestrial ions. *Journal of Geophysical Research*, **1987**, 92, 4757		52
181	Observed trends in auroral zone ion mode solitary wave structure characteristics using data from Polar. *Journal of Geophysical Research*, **2001**, 106, 19013-19021		50

180	The seasonal variation of auroral ion beams. *Geophysical Research Letters*, **1998**, 25, 4071-4074	4.9	50
179	Cusp energetic ions: A bow shock source. *Geophysical Research Letters*, **1998**, 25, 3729-3732	4.9	50
178	Solar-minimum quiet time ion energization and outflow in dynamic boundary related coordinates. *Journal of Geophysical Research*, **2008**, 113, n/a-n/a		47
177	A comparison of a model for the theta aurora with observations from Polar, Wind, and SuperDARN. *Journal of Geophysical Research*, **1998**, 103, 17367-17390		47
176	Polar/Toroidal Imaging Mass-Angle Spectrograph observations of suprathermal ion outflow during solar minimum conditions. *Journal of Geophysical Research*, **2001**, 106, 6059-6066		46
175	Magnetospheric boundary dynamics: DE 1 and DE 2 observations near the magnetopause and cusp. *Journal of Geophysical Research*, **1991**, 96, 3505		46
174	AE-C observations of low-energy particles and ionospheric temperatures in the turbulent polar cusp: Evidence for the Kelvin-Helmholtz instability. *Journal of Geophysical Research*, **1978**, 83, 3877		45
173	Origins of energetic ions in the cusp. *Journal of Geophysical Research*, **2001**, 106, 5967-5976		44
172	Flow-aligned jets in the magnetospheric cusp: Results from the Geospace Environment Modeling Pilot Program. *Journal of Geophysical Research*, **1995**, 100, 7649		42
171	The helium components of energetic terrestrial ion upflows: Their occurrence, morphology, and intensity. *Journal of Geophysical Research*, **1988**, 93, 7558		42
170	FAST observations of preferentially accelerated He+ in association with auroral electromagnetic ion cyclotron waves. *Geophysical Research Letters*, **1998**, 25, 2049-2052	4.9	38
169	Plasma sheet and (nonstorm) ring current formation from solar and polar wind sources. *Journal of Geophysical Research*, **2005**, 110,		37
168	O+ and He+ restricted and extended (BI-modal) ion conic distributions. *Geophysical Research Letters* , **1992**, 19, 1439-1442	4.9	37
167	Chromospheric heating by the Farley-Buneman instability. *Astronomy and Astrophysics*, **2008**, 480, 839-846	5.1	36
166	Species dependent energies in upward directed ion beams over auroral arcs as observed with FAST TEAMS. *Geophysical Research Letters*, **1998**, 25, 2029-2032	4.9	36
165	Statistical analysis of upflowing ion beam and conic distributions at DE 1 altitudes. *Journal of Geophysical Research*, **1990**, 95, 12091		36
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163	The January 10, 1997 auroral hot spot, horseshoe aurora and first substorm: A CME loop?. *Geophysical Research Letters*, **1998**, 25, 3047-3050	4.9	35

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160	Characteristic energy spectra of 1- to 500-eV electrons observed in the high-latitude ionosphere from Atmosphere Explorer C. *Journal of Geophysical Research*, **1976**, 81, 5507-5516		34
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158	Energetic magnetosheath ions connected to the Earth's bow shock: Possible source of cusp energetic ions. *Journal of Geophysical Research*, **2000**, 105, 5471-5488		32
157	Sudden compression of the outer magnetosphere associated with an ionospheric mass ejection. *Geophysical Research Letters*, **1999**, 26, 2343-2346	4.9	32
156	Conjugate photoelectron fluxes observed on Atmosphere Explorer C. *Geophysical Research Letters*, **1977**, 4, 109-112	4.9	32
155	Measurements of Energy and Angular Distributions of Secondary Electrons Produced in Electron-Impact Ionization of Helium. *Physical Review A*, **1972**, 5, 712-723	2.6	32
154	Transport of thermal-energy ionospheric oxygen (O+) ions between the ionosphere and the plasma sheet and ring current at quiet times preceding magnetic storms. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		31
153	Dynamic coordinates for auroral ion outflow. *Journal of Geophysical Research*, **2004**, 109,		31
152	Simulation of off-equatorial ring current ion spectra measured by Polar for a moderate storm at solar minimum. *Journal of Geophysical Research*, **1999**, 104, 429-436		31
151	Vertical thermal O+ flows at 850 km in dynamic auroral boundary coordinates. *Journal of Geophysical Research*, **2010**, 115, n/a-n/a		30
150	Temporal versus spatial interpretation of cusp ion structures observed by two spacecraft. *Journal of Geophysical Research*, **2002**, 107, SMP 9-1		30
149	Direct injection of ionospheric O+ into the dayside low latitude boundary layer. *Geophysical Research Letters*, **1989**, 16, 1121-1124	4.9	30
148	Solar extreme ultraviolet variability of the X-class flare on 21 April 2002 and the terrestrial photoelectron response. *Space Weather*, **2003**, 1, n/a-n/a	3.7	29
147	Initial FAST observations of acceleration processes in the cusp. *Geophysical Research Letters*, **1998**, 25, 2037-2040	4.9	29
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144	Cusp and magnetopause locations in global MHD simulation. *Journal of Geophysical Research*, **2001**, 106, 29435-29450		28
143	Multiple discrete-energy ion features in the inner magnetosphere: Observations and simulations. *Geophysical Research Letters*, **2000**, 27, 1447-1450	4.9	27
142	Plasma waves observed during cusp energetic particle events and their correlation with Polar and akebono satellite and ground data. *Advances in Space Research*, **1999**, 24, 23-33	2.4	27
141	On the sources of energization of molecular ions at ionospheric altitudes. *Journal of Geophysical Research*, **1994**, 99, 23257		27
140	Estimates of the suprathermal O+ outflow characteristic energy and relative location in the auroral oval. *Geophysical Research Letters*, **2005**, 32,	4.9	26
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133	MAVEN Observations of Solar Wind-Driven Magnetosonic Waves Heating the Martian Dayside Ionosphere. *Journal of Geophysical Research: Space Physics*, **2018**, 123, 4129-4149	2.6	25
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131	The Mars Topside Ionosphere Response to the X8.2 Solar Flare of 10 September 2017. *Geophysical Research Letters*, **2018**, 45, 8005-8013	4.9	24
130	Influences of the Ionosphere, Thermosphere and Magnetosphere on Ion Outflows **2011**, 283-314		24
129	History of kinetic polar wind models and early observations. *Journal of Atmospheric and Solar-Terrestrial Physics*, **2007**, 69, 1901-1935	2	24
128	Observations of centrifugal acceleration during compression of magnetosphere. *Geophysical Research Letters*, **2000**, 27, 915-918	4.9	24
127	Polar observations of convection with northward interplanetary magnetic field at dayside high latitudes. *Journal of Geophysical Research*, **1998**, 103, 29-45		23

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125	Model insights into energetic photoelectrons measured at Mars by MAVEN. *Geophysical Research Letters*, **2015**, 42, 8894-8900	4.9	22
124	On the High- and Low-Altitude Limits of the Auroral Electric Field Region. *Geophysical Monograph Series*, **2013**, 143-154	1.1	22
123	Geomagnetic activity dependence of O+ in transit from the ionosphere. *Journal of Atmospheric and Solar-Terrestrial Physics*, **2009**, 71, 1623-1629	2	22
122	The Time-of-Flight Energy, Angle, Mass Spectrograph (Teams) Experiment for Fast. *Space Science Reviews*, **2001**, 98, 197-219	7.5	22
121	Observations of polar cap arcs on FAST. *Journal of Geophysical Research*, **1999**, 104, 12669-12681		22
120	Simultaneous observations of H+ and O+; ions at two altitudes by the Akebono and Dynamics Explorer 1 satellites. *Journal of Geophysical Research*, **1993**, 98, 11177		22
119	Entry and acceleration of He+ in the low latitude boundary layer. *Geophysical Research Letters*, **1989**, 16, 751-754	4.9	22
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117	Comparison of different solar irradiance models for the superthermal electron transport model for Mars. *Planetary and Space Science*, **2015**, 119, 62-68	2	21
116	Neutral density response to solar flares at Mars. *Geophysical Research Letters*, **2015**, 42, 8986-8992	4.9	21
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114	Fast Auroral Snapshot observations of cusp electron and ion structures. *Journal of Geophysical Research*, **2001**, 106, 25595-25600		21
113	Broadband plasma waves observed in the polar cap boundary layer: Polar. *Journal of Geophysical Research*, **1998**, 103, 17351-17366		21
112	The role of ring current nose events in producing stable auroral red arc intensifications during the main phase: Observations during the September 19-24, 1984, Equinox Transition Study. *Journal of Geophysical Research*, **1993**, 98, 9267		21
111	Solar EUV and XUV energy input to thermosphere on solar rotation time scales derived from photoelectron observations. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		20
110	Polar observations of solitary waves at high and low altitudes and comparison to theory. *Advances in Space Research*, **2001**, 28, 1631-1641	2.4	20
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108	Comparison between calculated and measured photoelectron fluxes from Atmosphere Explorer C and E. *Journal of Geophysical Research*, **1977**, 82, 5099-5103		20
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106	Martian Electron Temperatures in the Subsolar Region: MAVEN Observations Compared to a One-Dimensional Model. *Journal of Geophysical Research: Space Physics*, **2018**, 123, 5960-5973	2.6	19
105	Investigation into the spatial and temporal coherence of ionospheric outflow on January 9–12, 1997. *Journal of Atmospheric and Solar-Terrestrial Physics*, **2002**, 64, 1659-1666	2	19
104	FAST/TEAMS observations of charge exchange signatures in ions mirroring at low altitudes. *Geophysical Research Letters*, **1998**, 25, 2085-2088	4.9	19
103	Ion Injection and Acceleration in the Polar Cusp **1985**, 67-84		19
102	Measurement of magnetic field aligned potential differences using high resolution conjugate photoelectron energy spectra. *Geophysical Research Letters*, **1977**, 4, 373-376	4.9	18
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96	Photoelectrons as a tool to evaluate spectral variations in solar EUV irradiance over solar cycle timescales. *Journal of Geophysical Research*, **2009**, 114, n/a-n/a		15
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93	Responses of the open–closed field line boundary in the evening sector to IMF changes: A source mechanism for Sun-aligned arcs. *Journal of Geophysical Research*, **2003**, 108, SMP 4-1		15
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91	Observations of traveling Pc5 waves and their relation to the magnetic cloud event of January 1997. *Journal of Geophysical Research*, **2000**, 105, 5441-5452		15

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88	Bifurcated cusp ion signatures: Evidence for re-reconnection?. *Geophysical Research Letters*, **1997**, 24, 1471-1474	4.9	13
87	An auroral F-region study using in situ measurements by the Atmosphere Explorer-C satellite. *Planetary and Space Science*, **1975**, 23, 1669-1679	2	13
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80	Initial Hot Plasma Composition Results from the Dynamics Explorer **1983**, 353-367		11
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78	A global comparison of O+ upward flows at 850 km and outflow rates at 6000 km during nonstorm times. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		10
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68	Overlapping ion populations in the cusp: polar/TIMAS results. *Geophysical Research Letters*, **1998**, 25, 1621-1624	4.9	9
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66	Spatial and Temporal Cusp Structures Observed by Multiple Spacecraft and Ground Based Observations. *Surveys in Geophysics*, **2005**, 26, 281-305	7.6	8
65	The Time-of-Flight Energy, Angle, Mass Spectrograph (Teams) Experiment for Fast **2001**, 197-219		8
64	Tracing the location of the reconnection site from the northern and southern cusps. *Journal of Geophysical Research*, **2006**, 111,		7
63	Plasma and field observations of a Pc 5 wave event. *Journal of Geophysical Research*, **1986**, 91, 11147		7
62	Ion Heating in the Martian Ionosphere. *Journal of Geophysical Research: Space Physics*, **2017**, 122, 10,612-10,625	3.6	6
61	Accelerated Auroral and Polar-Cap Ions : Outflow at De-1 Altitudes. *Geophysical Monograph Series*, **2013**, 72-76	1.1	6
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