Jacob Bortnik

List of Publications by Year in Descending Order

209 papers	9,548 citations	54 h-index	89 g-index
231 ext. papers	10,894 ext. citations	4.5 avg, IF	6.18 L-index

#	Paper	IF	Citations
209	Structure of Energy Precipitation Induced by Superbolt-Lightning Generated Whistler Waves. *Geophysical Research Letters*, **2022**, 49,	4.9	1
208	Relativistic Electron Model in the Outer Radiation Belt Using a Neural Network Approach. *Space Weather*, **2021**, 19, e2021SW002808	3.7	4
207	Conjugate Observation of Magnetospheric Chorus Propagating to the Ionosphere by Ducting. *Geophysical Research Letters*, **2021**, 48, e2021GL095933	4.9	0
206	Propagation of Chorus Waves Generated in Minimum-B Pockets. *Geophysical Research Letters*, **2021**, 48, e2021GL096478	4.9	
205	Frequency-Dependent Responses of Plasmaspheric Hiss to the Impact of an Interplanetary Shock. *Geophysical Research Letters*, **2021**, 48, e2021GL094810	4.9	0
204	Multi-Parameter Chorus and Plasmaspheric Hiss Wave Models. *Journal of Geophysical Research: Space Physics*, **2021**, 126, e2020JA028403	2.6	2
203	Characteristics of Substorm-Onset-Related and Nonsubstorm Earthward Fast Flows and Associated Magnetic Flux Transport: THEMIS Observations. *Journal of Geophysical Research: Space Physics*, **2021**, 126, e2020JA028313	2.6	0
202	Statistical Investigation of the Frequency Dependence of the Chorus Source Mechanism of Plasmaspheric Hiss. *Geophysical Research Letters*, **2021**, 48, e2021GL092725	4.9	9
201	Wave–Particle Interactions in the Earth's Magnetosphere. *Geophysical Monograph Series*, **2021**, 93-108	1.1	8
200	Sustained Oxygen Spectral Gaps and Their Dynamic Evolution in the Inner Magnetosphere. *Journal of Geophysical Research: Space Physics*, **2021**, 126, e2020JA029092	2.6	2
199	Rapid Injections of MeV Electrons and Extremely Fast Step-Like Outer Radiation Belt Enhancements. *Geophysical Research Letters*, **2021**, 48, e2021GL093151	4.9	2
198	The Characteristics of EMIC Waves in the Magnetosphere Based on the Van Allen Probes and Arase Observations. *Journal of Geophysical Research: Space Physics*, **2021**, 126, e2020JA029001	2.6	5
197	An Electron Density Model of the D- and E-Region Ionosphere for Transionospheric VLF Propagation. *Journal of Geophysical Research: Space Physics*, **2021**, 126, e2021JA029288	2.6	3
196	Magnetotail Flux Accumulation Leads to Substorm Current Wedge Formation: A Case Study. *Journal of Geophysical Research: Space Physics*, **2021**, 126,	2.6	3
195	Multipoint Observations of Quasiperiodic Emission Intensification and Effects on Energetic Electron Precipitation. *Journal of Geophysical Research: Space Physics*, **2021**, 126, e2020JA028484	2.6	2
194	Global Survey of Electron Precipitation due to Hiss Waves in the Earth's Plasmasphere and Plumes. *Journal of Geophysical Research: Space Physics*, **2021**, 126, e2021JA029644	2.6	6
193	Nonlinear Landau Resonant Interaction Between Kinetic Alfvén Waves and Thermal Electrons: Excitation of Time Domain Structures. *Journal of Geophysical Research: Space Physics*, **2021**, 126,	2.6	3

192	Energetic Electron Distributions Near the Magnetic Equator in the Jovian Plasma Sheet and Outer Radiation Belt Using Juno Observations. *Geophysical Research Letters*, **2021**, 48,	4.9	1
191	Radial Response of Outer Radiation Belt Relativistic Electrons During Enhancement Events at Geostationary Orbit. *Journal of Geophysical Research: Space Physics*, **2020**, 125, e2019JA027660	2.6	1
190	Comparison of Long-Term Lightning Activity and Inner Radiation Belt Electron Flux Perturbations. *Journal of Geophysical Research: Space Physics*, **2020**, 125, e2019JA027763	2.6	0
189	Nonlinear Interactions Between Radiation Belt Electrons and Chorus Waves: Dependence on Wave Amplitude Modulation. *Geophysical Research Letters*, **2020**, 47, e2019GL085987	4.9	20
188	Inward Propagation of Flow-Generated Pi2 Waves From the Plasma Sheet to the Inner Magnetosphere. *Journal of Geophysical Research: Space Physics*, **2020**, 125, e2019JA027581	2.6	2
187	On the Confinement of Ultrarelativistic Electron Remnant Belts to Low Shells. *Journal of Geophysical Research: Space Physics*, **2020**, 125, e2019JA027469	2.6	3
186	Ion-Scale Flux Rope Observed inside a Hot Flow Anomaly. *Geophysical Research Letters*, **2020**, 47, e2019GL085933	4.9	3
185	Empirically Estimated Electron Lifetimes in the Earth's Radiation Belts: Van Allen Probe Observations. *Geophysical Research Letters*, **2020**, 47, e2019GL086053	4.9	19
184	Episodic Occurrence of Field-Aligned Energetic Ions on the Dayside. *Geophysical Research Letters*, **2020**, 47, e2019GL086384	4.9	4
183	Recent Advances in Understanding Radiation Belt Electron Dynamics Due to Wave-Particle Interactions. *Geophysical Monograph Series*, **2020**, 207-229	1.1	1
182	Global Model of Whistler Mode Chorus in the Near-Equatorial Region ($\lvert B_w \rvert$). *Geophysical Research Letters*, **2020**, 47, e2020GL087311	4.9	18
181	Wave-particle interactions with coherent magnetosonic waves **2020**, 99-120		
180	Very-Low-Frequency transmitters bifurcate energetic electron belt in near-earth space. *Nature Communications*, **2020**, 11, 4847	17.4	14
179	Modulation of Whistler Waves by Ultra-Low-Frequency Perturbations: The Importance of Magnetopause Location. *Journal of Geophysical Research: Space Physics*, **2020**, 125, e2020JA028334	2.6	7
178	Outer Radiation Belt Electron Lifetime Model Based on Combined Van Allen Probes and Cluster VLF Measurements. *Journal of Geophysical Research: Space Physics*, **2020**, 125, e2020JA028018	2.6	6
177	The Modulation of Plasma and Waves by Background Electron Density Irregularities in the Inner Magnetosphere. *Geophysical Research Letters*, **2020**, 47, e2020GL088855	4.9	12
176	ULF Wave Activity Observed in the Nighttime Ionosphere Above and Some Hours Before Strong Earthquakes. *Journal of Geophysical Research: Space Physics*, **2020**, 125, e2020JA028396	2.6	6
175	Properties of Lightning Generated Whistlers Based on Van Allen Probes Observations and Their Global Effects on Radiation Belt Electron Loss. *Geophysical Research Letters*, **2020**, 47, e2020GL089584	4.9	11

174	Empirically Estimated Electron Lifetimes in the Earth's Radiation Belts: Comparison With Theory. *Geophysical Research Letters*, **2020**, 47, e2019GL086056	4.9	23
173	Unified View of Nonlinear Wave Structures Associated with Whistler-Mode Chorus. *Physical Review Letters*, **2019**, 122, 045101	7.4	18
172	A Statistical Study of EMIC Waves Associated With and Without Energetic Particle Injection From the Magnetotail. *Journal of Geophysical Research: Space Physics*, **2019**, 124, 433-450	2.6	26
171	High-Frequency Communications Response to Solar Activity in September 2017 as Observed by Amateur Radio Networks. *Space Weather*, **2019**, 17, 118-132	3.7	18
170	The Relationship Between EMIC Wave Properties and Proton Distributions Based on Van Allen Probes Observations. *Geophysical Research Letters*, **2019**, 46, 4070-4078	4.9	23
169	Event Studies of O+ Density Variability Within Quiet-Time Plasma Sheet. *Journal of Geophysical Research: Space Physics*, **2019**, 124, 4168-4187	2.6	1
168	Ion Heating by Electromagnetic Ion Cyclotron Waves and Magnetosonic Waves in the Earth's Inner Magnetosphere. *Geophysical Research Letters*, **2019**, 46, 6258-6267	4.9	24
167	On the Generation of Probabilistic Forecasts From Deterministic Models. *Space Weather*, **2019**, 17, 455-475	3.7	5
166	EMIC Wave Properties Associated With and Without Injections in The Inner Magnetosphere. *Journal of Geophysical Research: Space Physics*, **2019**, 124, 2029-2045	2.6	15
165	Linear unstable whistler eigenmodes excited by a finite electron beam. *Physics of Plasmas*, **2019**, 26, 082114	1.14	1
164	Pitch Angle Scattering of Sub-MeV Relativistic Electrons by Electromagnetic Ion Cyclotron Waves. *Journal of Geophysical Research: Space Physics*, **2019**, 124, 5610-5626	2.6	26
163	Nonlinear Electron Interaction With Intense Chorus Waves: Statistics of Occurrence Rates. *Geophysical Research Letters*, **2019**, 46, 7182-7190	4.9	29
162	Decay of Ultrarelativistic Remnant Belt Electrons Through Scattering by Plasmaspheric Hiss. *Journal of Geophysical Research: Space Physics*, **2019**, 124, 5222-5233	2.6	7
161	Origin of two-band chorus in the radiation belt of Earth. *Nature Communications*, **2019**, 10, 4672	17.4	29
160	Oxygen Ion Dynamics in the Earth's Ring Current: Van Allen Probes Observations. *Journal of Geophysical Research: Space Physics*, **2019**, 124, 7786-7798	2.6	19
159	Features of Nightside ULF Wave Activity in the Ionosphere. *Journal of Geophysical Research: Space Physics*, **2019**, 124, 9203-9213	2.6	3
158	Global Survey and Empirical Model of Fast Magnetosonic Waves Over Their Full Frequency Range in Earth's Inner Magnetosphere. *Journal of Geophysical Research: Space Physics*, **2019**, 124, 10270-10282	2.6	8
157	Low Frequency (f Journal of Geophysical Research: Space Physics, **2019**, 124, 10063-10084	2.6	6

156	Parallel Acceleration of Suprathermal Electrons Caused by Whistler-Mode Hiss Waves. *Geophysical Research Letters*, **2019**, 46, 12675-12684	4.9	10
155	Quantitative Evaluation of Radial Diffusion and Local Acceleration Processes During GEM Challenge Events. *Journal of Geophysical Research: Space Physics*, **2018**, 123, 1938-1952	2.6	53
154	Pitch Angle Dependence of Energetic Electron Precipitation: Energy Deposition, Backscatter, and the Bounce Loss Cone. *Journal of Geophysical Research: Space Physics*, **2018**, 123, 2412	2.6	12
153	Interplanetary Parameters Leading to Relativistic Electron Enhancement and Persistent Depletion Events at Geosynchronous Orbit and Potential for Prediction. *Journal of Geophysical Research: Space Physics*, **2018**, 123, 1134-1145	2.6	10
152	Comment on Pulsating Auroras Produced by Interactions of Electrons and Time Domain Structures by Mozer Et Al.. *Journal of Geophysical Research: Space Physics*, **2018**, 123, 2064-2070	2.6	11
151	Global Characteristics of Electromagnetic Ion Cyclotron Waves Deduced From Swarm Satellites. *Journal of Geophysical Research: Space Physics*, **2018**, 123, 1325-1336	2.6	9
150	The Composition of Plasma inside Geostationary Orbit Based on Van Allen Probes Observations. *Journal of Geophysical Research: Space Physics*, **2018**, 123, 6478-6493	2.6	31
149	Longitudinal Dependence of Whistler Mode Electromagnetic Waves in the Earth's Inner Magnetosphere. *Journal of Geophysical Research: Space Physics*, **2018**, 123, 6562-6575	2.6	11
148	Test-Particle Simulations of Linear and Nonlinear Interactions Between a 2-D Whistler-Mode Wave Packet and Radiation Belt Electrons. *Geophysical Research Letters*, **2018**, 45, 5234-5245	4.9	7
147	Relativistic Electron Microburst Events: Modeling the Atmospheric Impact. *Geophysical Research Letters*, **2018**, 45, 1141-1147	4.9	15
146	Nightside ULF Waves Observed in the Topside Ionosphere by the DEMETER Satellite. *Journal of Geophysical Research: Space Physics*, **2018**, 123, 7726-7739	2.6	3
145	Artificial Neural Networks for Determining Magnetospheric Conditions **2018**, 279-300		10
144	Properties of Intense Field-Aligned Lower-Band Chorus Waves: Implications for Nonlinear Wave-Particle Interactions. *Journal of Geophysical Research: Space Physics*, **2018**, 123, 5379-5393	2.6	37
143	Global Model of Plasmaspheric Hiss From Multiple Satellite Observations. *Journal of Geophysical Research: Space Physics*, **2018**, 123, 4526-4541	2.6	49
142	Plasmaspheric Hiss: Coherent and Intense. *Journal of Geophysical Research: Space Physics*, **2018**, 123, 10,009-10,029	2.6	13
141	Resonant Scattering of Near-Equatorially Mirroring Electrons by Landau Resonance With H+ Band EMIC Waves. *Geophysical Research Letters*, **2018**, 45, 10,866	4.9	13
140	Electron Nonlinear Resonant Interaction With Short and Intense Parallel Chorus Wave Packets. *Journal of Geophysical Research: Space Physics*, **2018**, 123, 4979-4999	2.6	35
139	Characteristics, Occurrence, and Decay Rates of Remnant Belts Associated With Three-Belt Events in the Earth's Radiation Belts. *Geophysical Research Letters*, **2018**, 45, 12,099-12,107	4.9	7

138	Local Excitation of Whistler Mode Waves and Associated Langmuir Waves at Dayside Reconnection Regions. *Geophysical Research Letters*, **2018**, 45, 8793-8802	4.9	14
137	Transitional behavior of different energy protons based on Van Allen Probes observations. *Geophysical Research Letters*, **2017**, 44, 625-633	4.9	14
136	Bounce resonance scattering of radiation belt electrons by H+ band EMIC waves. *Journal of Geophysical Research: Space Physics*, **2017**, 122, 1702-1713	2.6	34
135	Coherently modulated whistler mode waves simultaneously observed over unexpectedly large spatial scales. *Journal of Geophysical Research: Space Physics*, **2017**, 122, 1871-1882	2.6	9
134	Zipper-like periodic magnetosonic waves: Van Allen Probes, THEMIS, and magnetospheric multiscale observations. *Journal of Geophysical Research: Space Physics*, **2017**, 122, 1600-1610	2.6	11
133	On the parameter dependence of the whistler anisotropy instability. *Journal of Geophysical Research: Space Physics*, **2017**, 122, 2001-2009	2.6	27
132	Diffusive Transport of Several Hundred keV Electrons in the Earth's Slot Region. *Journal of Geophysical Research: Space Physics*, **2017**, 122, 10,235	2.6	11
131	The Characteristic Pitch Angle Distributions of 1 eV to 600 keV Protons Near the Equator Based On Van Allen Probes Observations. *Journal of Geophysical Research: Space Physics*, **2017**, 122, 9464-9473	2.6	21
130	A neural network model of three-dimensional dynamic electron density in the inner magnetosphere. *Journal of Geophysical Research: Space Physics*, **2017**, 122, 9183-9197	2.6	30
129	Erosion and refilling of the plasmasphere during a geomagnetic storm modeled by a neural network. *Journal of Geophysical Research: Space Physics*, **2017**, 122, 7118-7129	2.6	22
128	Statistical properties of low-frequency plasmaspheric hiss. *Journal of Geophysical Research: Space Physics*, **2017**, 122, 8340-8352	2.6	39
127	Electrostatic and whistler instabilities excited by an electron beam. *Physics of Plasmas*, **2017**, 24, 072116	2.1	22
126	Growth and nonlinear saturation of electromagnetic ion cyclotron waves in multi-ion species magnetospheric plasma. *Journal of Geophysical Research: Space Physics*, **2017**, 122, 6469-6484	2.6	8
125	Coordinated observations of two types of diffuse auroras near magnetic local noon by Magnetospheric Multiscale mission and ground all-sky camera. *Geophysical Research Letters*, **2017**, 44, 8130-8139	4.9	10
124	Chorus Wave Modulation of Langmuir Waves in the Radiation Belts. *Geophysical Research Letters*, **2017**, 44, 11,713-11,721	4.9	15
123	Laboratory simulation of magnetospheric chorus wave generation. *Plasma Physics and Controlled Fusion*, **2017**, 59, 014016	2	14
122	The Characteristic Response of Whistler Mode Waves to Interplanetary Shocks. *Journal of Geophysical Research: Space Physics*, **2017**, 122, 10,047	2.6	21
121	Rapid enhancement of low-energy (. *Journal of Geophysical Research: Space Physics*, **2016**, 121, 6430-6443	2.6	20

120	The distribution of plasmaspheric hiss wave power with respect to plasmapause location. *Geophysical Research Letters*, **2016**, 43, 7878-7886	4.9	62
119	Relationship between Chorus and Plasmaspheric Hiss Waves. *Geophysical Monograph Series*, **2016**, 79-97	1.1	4
118	Physical mechanism causing rapid changes in ultrarelativistic electron pitch angle distributions right after a shock arrival: Evaluation of an electron dropout event. *Journal of Geophysical Research: Space Physics*, **2016**, 121, 8300-8316	2.6	14
117	Resonant excitation of whistler waves by a helical electron beam. *Geophysical Research Letters*, **2016**, 43, 2413-2421	4.9	25
116	Unraveling the excitation mechanisms of highly oblique lower band chorus waves. *Geophysical Research Letters*, **2016**, 43, 8867-8875	4.9	58
115	Electron scattering by magnetosonic waves in the inner magnetosphere. *Journal of Geophysical Research: Space Physics*, **2016**, 121, 274-285	2.6	82
114	Origins of the Earth□ Diffuse Auroral Precipitation. *Space Science Reviews*, **2016**, 200, 205-259	7.5	92
113	Chorus Waves in Geospace and their Influence on Radiation Belt Dynamics **2016**, 192-216		9
112	Formation of energetic electron butterfly distributions by magnetosonic waves via Landau resonance. *Geophysical Research Letters*, **2016**, 43, 3009-3016	4.9	73
111	Radiation belt electron acceleration during the 17 March 2015 geomagnetic storm: Observations and simulations. *Journal of Geophysical Research: Space Physics*, **2016**, 121, 5520-5536	2.6	52
110	Strong enhancement of 10□100 keV electron fluxes by combined effects of chorus waves and time domain structures. *Geophysical Research Letters*, **2016**, 43, 4683-4690	4.9	26
109	Generation of multiband chorus by lower band cascade in the Earth's magnetosphere. *Geophysical Research Letters*, **2016**, 43, 2343-2350	4.9	50
108	New chorus wave properties near the equator from Van Allen Probes wave observations. *Geophysical Research Letters*, **2016**, 43, 4725-4735	4.9	70
107	Characteristic energy range of electron scattering due to plasmaspheric hiss. *Journal of Geophysical Research: Space Physics*, **2016**, 121, 11,737	2.6	39
106	A unified approach to inner magnetospheric state prediction. *Journal of Geophysical Research: Space Physics*, **2016**, 121, 2423-2430	2.6	29
105	Ultrarelativistic electron butterfly distributions created by parallel acceleration due to magnetosonic waves. *Journal of Geophysical Research: Space Physics*, **2016**, 121, 3212-3222	2.6	31
104	Electron butterfly distribution modulation by magnetosonic waves. *Geophysical Research Letters*, **2016**, 43, 3051-3059	4.9	27
103	Statistical distribution of EMIC wave spectra: Observations from Van Allen Probes. *Geophysical Research Letters*, **2016**, 43, 12,348	4.9	40

102	The relationship between the macroscopic state of electrons and the properties of chorus waves observed by the Van Allen Probes. *Geophysical Research Letters*, **2016**, 43, 7804-7812	4.9	40
101	Direct evidence for EMIC wave scattering of relativistic electrons in space. *Journal of Geophysical Research: Space Physics*, **2016**, 121, 6620-6631	2.6	44
100	Nonresonant interactions of electromagnetic ion cyclotron waves with relativistic electrons. *Journal of Geophysical Research: Space Physics*, **2016**, 121, 9913-9925	2.6	44
99	Analytical approximation of transit time scattering due to magnetosonic waves. *Geophysical Research Letters*, **2015**, 42, 1318-1325	4.9	31
98	Comparison of formulas for resonant interactions between energetic electrons and oblique whistler-mode waves. *Physics of Plasmas*, **2015**, 22, 052902	2.1	11
97	Excitation of Chirping Whistler Waves in a Laboratory Plasma. *Physical Review Letters*, **2015**, 114, 245002	7.4	38
96	Statistical properties of plasmaspheric hiss derived from Van Allen Probes data and their effects on radiation belt electron dynamics. *Journal of Geophysical Research: Space Physics*, **2015**, 120, 3393-3405	2.6	132
95	Excitation of dayside chorus waves due to magnetic field line compression in response to interplanetary shocks. *Journal of Geophysical Research: Space Physics*, **2015**, 120, 8327-8338	2.6	25
94	Nonlinear bounce resonances between magnetosonic waves and equatorially mirroring electrons. *Journal of Geophysical Research: Space Physics*, **2015**, 120, 6514-6527	2.6	57
93	Resonant scattering of outer zone relativistic electrons by multiband EMIC waves and resultant electron loss time scales. *Journal of Geophysical Research: Space Physics*, **2015**, 120, 7357-7373	2.6	129
92	Analysis of plasmaspheric hiss wave amplitudes inferred from low-altitude POES electron data: Validation with conjunctive Van Allen Probes observations. *Journal of Geophysical Research: Space Physics*, **2015**, 120, 8681-8691	2.6	4
91	Resonance of relativistic electrons with electromagnetic ion cyclotron waves. *Geophysical Research Letters*, **2015**, 42, 8263-8270	4.9	12
90	The effect of different solar wind parameters upon significant relativistic electron flux dropouts in the magnetosphere. *Journal of Geophysical Research: Space Physics*, **2015**, 120, 4324-4337	2.6	33
89	Solar wind conditions leading to efficient radiation belt electron acceleration: A superposed epoch analysis. *Geophysical Research Letters*, **2015**, 42, 6906-6915	4.9	39
88	First evidence for chorus at a large geocentric distance as a source of plasmaspheric hiss: Coordinated THEMIS and Van Allen Probes observation. *Geophysical Research Letters*, **2015**, 42, 241-248	4.9	39
87	Chorus intensity modulation driven by time-varying field-aligned low-energy plasma. *Journal of Geophysical Research: Space Physics*, **2015**, 120, 7433-7446	2.6	10
86	Direct detection of resonant electron pitch angle scattering by whistler waves in a laboratory plasma. *Physical Review Letters*, **2014**, 112, 145006	7.4	15
85	Generation of unusually low frequency plasmaspheric hiss. *Geophysical Research Letters*, **2014**, 41, 5702-5709	4.9	44

84	Radiation belt electron acceleration by chorus waves during the 17 March 2013 storm. *Journal of Geophysical Research: Space Physics*, **2014**, 119, 4681-4693	2.6	146
83	Chorus wave scattering responsible for the Earth's dayside diffuse auroral precipitation: A detailed case study. *Journal of Geophysical Research: Space Physics*, **2014**, 119, 897-908	2.6	48
82	Quantifying hiss-driven energetic electron precipitation: A detailed conjunction event analysis. *Geophysical Research Letters*, **2014**, 41, 1085-1092	4.9	33
81	A novel technique to construct the global distribution of whistler mode chorus wave intensity using low-altitude POES electron data. *Journal of Geophysical Research: Space Physics*, **2014**, 119, 5685-5699	2.6	52
80	New evidence for generation mechanisms of discrete and hiss-like whistler mode waves. *Geophysical Research Letters*, **2014**, 41, 4805-4811	4.9	46
79	Resonant scattering of energetic electrons by unusual low-frequency hiss. *Geophysical Research Letters*, **2014**, 41, 1854-1861	4.9	95
78	Effects of discreteness of chorus waves on quasilinear diffusion-based modeling of energetic electron dynamics. *Journal of Geophysical Research: Space Physics*, **2014**, 119, 8848-8857	2.6	17
77	Evidence of stronger pitch angle scattering loss caused by oblique whistler-mode waves as compared with quasi-parallel waves. *Geophysical Research Letters*, **2014**, 41, 6063-6070	4.9	54
76	Competing source and loss mechanisms due to wave-particle interactions in Earth's outer radiation belt during the 30 September to 3 October 2012 geomagnetic storm. *Journal of Geophysical Research: Space Physics*, **2014**, 119, 1960-1979	2.6	83
75	On the storm-time evolution of relativistic electron phase space density in Earth's outer radiation belt. *Journal of Geophysical Research: Space Physics*, **2013**, 118, 2196-2212	2.6	94
74	An unusual enhancement of low-frequency plasmaspheric hiss in the outer plasmasphere associated with substorm-injected electrons. *Geophysical Research Letters*, **2013**, 40, 3798-3803	4.9	105
73	Rapid local acceleration of relativistic radiation-belt electrons by magnetospheric chorus. *Nature*, **2013**, 504, 411-4	50.4	481
72	Evolution and slow decay of an unusual narrow ring of relativistic electrons near L ~ 3.2 following the September 2012 magnetic storm. *Geophysical Research Letters*, **2013**, 40, 3507-3511	4.9	137
71	Impact of cold O+ ions on the generation and evolution of EMIC waves. *Journal of Geophysical Research: Space Physics*, **2013**, 118, 434-445	2.6	32
70	Aspects of Nonlinear Wave-Particle Interactions. *Geophysical Monograph Series*, **2013**, 255-264	1.1	51
69	The importance of amplitude modulation in nonlinear interactions between electrons and large amplitude whistler waves. *Journal of Atmospheric and Solar-Terrestrial Physics*, **2013**, 99, 67-72	2	47
68	Structures of dayside whistler-mode waves deduced from conjugate diffuse aurora. *Journal of Geophysical Research: Space Physics*, **2013**, 118, 664-673	2.6	61
67	Modeling the wave normal distribution of chorus waves. *Journal of Geophysical Research: Space Physics*, **2013**, 118, 1074-1088	2.6	65

66	Characteristics of the Poynting flux and wave normal vectors of whistler-mode waves observed on THEMIS. *Journal of Geophysical Research: Space Physics*, **2013**, 118, 1461-1471	2.6	89
65	Global statistical evidence for chorus as the embryonic source of plasmaspheric hiss. *Geophysical Research Letters*, **2013**, 40, 2891-2896	4.9	49
64	Statistical analysis of EMIC waves in plasmaspheric plumes from Cluster observations. *Journal of Geophysical Research: Space Physics*, **2013**, 118, 4946-4951	2.6	60
63	Constructing the global distribution of chorus wave intensity using measurements of electrons by the POES satellites and waves by the Van Allen Probes. *Geophysical Research Letters*, **2013**, 40, 4526-4532	4.9	119
62	Resonant scattering and resultant pitch angle evolution of relativistic electrons by plasmaspheric hiss. *Journal of Geophysical Research: Space Physics*, **2013**, 118, 7740-7751	2.6	150
61	THEMIS observations of electromagnetic ion cyclotron wave occurrence: Dependence on AE, SYMH, and solar wind dynamic pressure. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		191
60	Effects of amplitude modulation on nonlinear interactions between electrons and chorus waves. *Geophysical Research Letters*, **2012**, 39, n/a-n/a	4.9	73
59	Amplification of whistler-mode hiss inside the plasmasphere. *Geophysical Research Letters*, **2012**, 39, n/a-n/a	4.9	64
58	Comparison of bounce-averaged quasi-linear diffusion coefficients for parallel propagating whistler mode waves with test particle simulations. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		60
57	Modeling the properties of plasmaspheric hiss: 2. Dependence on the plasma density distribution. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		32
56	Modeling the properties of plasmaspheric hiss: 1. Dependence on chorus wave emission. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		58
55	Modulation of plasmaspheric hiss intensity by thermal plasma density structure. *Geophysical Research Letters*, **2012**, 39, n/a-n/a	4.9	35
54	PENGUIn/AGO and THEMIS conjugate observations of whistler mode chorus waves in the dayside uniform zone under steady solar wind and quiet geomagnetic conditions. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		26
53	Characteristics of hiss-like and discrete whistler-mode emissions. *Geophysical Research Letters*, **2012**, 39,	4.9	67
52	Modulation of whistler mode chorus waves: 1. Role of compressional Pc45 pulsations. *Journal of Geophysical Research*, **2011**, 116, n/a-n/a		52
51	Modulation of whistler mode chorus waves: 2. Role of density variations. *Journal of Geophysical Research*, **2011**, 116, n/a-n/a		47
50	Comparison of quasilinear diffusion coefficients for parallel propagating whistler mode waves with test particle simulations. *Geophysical Research Letters*, **2011**, 38, n/a-n/a	4.9	54
49	Typical properties of rising and falling tone chorus waves. *Geophysical Research Letters*, **2011**, 38, n/a-n/a	4.9	84

48	The controlling effect of ion temperature on EMIC wave excitation and scattering. *Geophysical Research Letters*, **2011**, 38, n/a-n/a	4.9	85
47	Modeling the evolution of chorus waves into plasmaspheric hiss. *Journal of Geophysical Research*, **2011**, 116, n/a-n/a		87
46	Hybrid simulations of EMIC waves in a dipolar magnetic field. *Journal of Geophysical Research*, **2011**, 116, n/a-n/a		21
45	Saturation characteristics of electromagnetic ion cyclotron waves. *Journal of Geophysical Research*, **2011**, 116, n/a-n/a		29
44	Modeling the wave power distribution and characteristics of plasmaspheric hiss. *Journal of Geophysical Research*, **2011**, 116, n/a-n/a		58
43	Multievent study of the correlation between pulsating aurora and whistler mode chorus emissions. *Journal of Geophysical Research*, **2011**, 116, n/a-n/a		70
42	Global distribution of wave amplitudes and wave normal angles of chorus waves using THEMIS wave observations. *Journal of Geophysical Research*, **2011**, 116, n/a-n/a		196
41	Nonlinear interactions between relativistic radiation belt electrons and oblique whistler mode waves. *Nonlinear Processes in Geophysics*, **2010**, 17, 599-604	2.9	71
40	Identifying the driver of pulsating aurora. *Science*, **2010**, 330, 81-4	33.3	208
39	THEMIS analysis of observed equatorial electron distributions responsible for the chorus excitation. *Journal of Geophysical Research*, **2010**, 115, n/a-n/a		121
38	Variance of transionospheric VLF wave power absorption. *Journal of Geophysical Research*, **2010**, 115,		23
37	Transit time scattering of energetic electrons due to equatorially confined magnetosonic waves. *Journal of Geophysical Research*, **2010**, 115,		124
36	Nonlinear evolution of EMIC waves in a uniform magnetic field: 2. Test-particle scattering. *Journal of Geophysical Research*, **2010**, 115, n/a-n/a		20
35	Nonlinear evolution of EMIC waves in a uniform magnetic field: 1. Hybrid simulations. *Journal of Geophysical Research*, **2010**, 115, n/a-n/a		37
34	Global distributions of suprathermal electrons observed on THEMIS and potential mechanisms for access into the plasmasphere. *Journal of Geophysical Research*, **2010**, 115, n/a-n/a		104
33	Relativistic microburst storm characteristics: Combined satellite and ground-based observations. *Journal of Geophysical Research*, **2010**, 115, n/a-n/a		23
32	An observation linking the origin of plasmaspheric hiss to discrete chorus emissions. *Science*, **2009**, 324, 775-8	33.3	156
31	Plasmaspheric hiss overview and relation to chorus. *Journal of Atmospheric and Solar-Terrestrial Physics*, **2009**, 71, 1636-1646	2	32

30	Global distribution of whistler-mode chorus waves observed on the THEMIS spacecraft. *Geophysical Research Letters*, **2009**, 36,	4.9	245
29	Nonlinear interaction of radiation belt electrons with electromagnetic ion cyclotron waves. *Geophysical Research Letters*, **2009**, 36,	4.9	108
28	Three-dimensional ray tracing of VLF waves in a magnetospheric environment containing a plasmaspheric plume. *Geophysical Research Letters*, **2009**, 36,	4.9	65
27	The unexpected origin of plasmaspheric hiss from discrete chorus emissions. *Nature*, **2008**, 452, 62-6	50.4	269
26	Pc1–Pc2 waves and energetic particle precipitation during and after magnetic storms: Superposed epoch analysis and case studies. *Journal of Geophysical Research*, **2008**, 113, n/a-n/a		85
25	Precipitation signatures of ground-based VLF transmitters. *Journal of Geophysical Research*, **2008**, 113, n/a-n/a		34
24	Characteristics of low-latitude Pc1 pulsations during geomagnetic storms. *Journal of Geophysical Research*, **2008**, 113, n/a-n/a		27
23	Resonant scattering of plasma sheet electrons by whistler-mode chorus: Contribution to diffuse auroral precipitation. *Geophysical Research Letters*, **2008**, 35,	4.9	274
22	Nonlinear interaction of energetic electrons with large amplitude chorus. *Geophysical Research Letters*, **2008**, 35,	4.9	169
21	Evaluation of whistler mode chorus amplification during an injection event observed on CRRES. *Journal of Geophysical Research*, **2008**, 113, n/a-n/a		58
20	Power line harmonic radiation observed by satellite: Properties and propagation through the ionosphere. *Journal of Geophysical Research*, **2008**, 113, n/a-n/a		28
19	The possible statistical relation of Pc1 pulsations to Earthquake occurrence at low latitudes. *Annales Geophysicae*, **2008**, 26, 2825-2836	2	13
18	An automatic wave detection algorithm applied to Pc1 pulsations. *Journal of Geophysical Research*, **2007**, 112, n/a-n/a		51
17	Modeling the propagation characteristics of chorus using CRRES suprathermal electron fluxes. *Journal of Geophysical Research*, **2007**, 112, n/a-n/a		96
16	Ray tracing of penetrating chorus and its implications for the radiation belts. *Geophysical Research Letters*, **2007**, 34,	4.9	47
15	Storm time, short-lived bursts of relativistic electron precipitation detected by subionospheric radio wave propagation. *Journal of Geophysical Research*, **2007**, 112, n/a-n/a		20
14	The dual role of ELF/VLF chorus waves in the acceleration and precipitation of radiation belt electrons. *Journal of Atmospheric and Solar-Terrestrial Physics*, **2007**, 69, 378-386	2	140
13	Landau damping and resultant unidirectional propagation of chorus waves. *Geophysical Research Letters*, **2006**, 33,	4.9	57

List of Publications

12	Temporal signatures of radiation belt electron precipitation induced by lightning-generated MR whistler waves: 1. Methodology. *Journal of Geophysical Research*, **2006**, 111,		46
11	Temporal signatures of radiation belt electron precipitation induced by lightning-generated MR whistler waves: 2. Global signatures. *Journal of Geophysical Research*, **2006**, 111,		43
10	Observation of two distinct, rapid loss mechanisms during the 20 November 2003 radiation belt dropout event. *Journal of Geophysical Research*, **2006**, 111,		158
9	Energy distribution and lifetime of magnetospherically reflecting whistlers in the plasmasphere. *Journal of Geophysical Research*, **2003**, 108,		40
8	Frequency-time spectra of magnetospherically reflecting whistlers in the plasmasphere. *Journal of Geophysical Research*, **2003**, 108,		51
7	Controlled precipitation of radiation belt electrons. *Journal of Geophysical Research*, **2003**, 108,		85
6	L dependence of energetic electron precipitation driven by magnetospherically reflecting whistler waves. *Journal of Geophysical Research*, **2002**, 107, SMP 1-1-SMP 1-13		16
5	Observations of relativistic electron microbursts in association with VLF chorus. *Journal of Geophysical Research*, **2001**, 106, 6017-6027		191
4	Lightning-induced energetic electron flux enhancements in the drift loss cone. *Journal of Geophysical Research*, **2001**, 106, 29733-29744		34
3	Geomagnetically Induced Currents at Middle Latitudes: 1. Quiet-time Variability. *Space Weather*,e2021SW002729	3.7	29
2	Whistler Waves above the Lower Hybrid Frequency in the Ionosphere and their Counterparts in the Magnetosphere. *Geophysical Research Letters*,	4.9	
1	Radiation Belt Electron Acceleration Driven by Very-Low-Frequency Transmitter Waves in Near-Earth Space. *Geophysical Research Letters*,	4.9	0