VERSIM

VLF/ELF Remote Sensing of Ionospheres & Magnetospheres

in KYOTO

~~23 – 27 Mar. 2020~~

postponed to Nov. 21-25, 2020

VERSIM2020 Tentative Program

Updated on March 4, 2020

Date&Time	Paper No.	Paper Title	Authors
Chairs			
November 21 (Sat)	Day 1		
		Registration (9:00 - 9:30)	
		Opening (9:30 - 9:55)	
9:55 - 10:40	O1-1	Recent Observations of KHF-VLF Emissions	Jyrki Manninen*, Claudia Martinez-Calderon, and Tauno Turunen
Omura & Hirahara	O1-2	Lightning Discharges Induced Ionospheric Perturbations during Severe Weather System	Rajesh Singh*
		Break (10:40 - 11:10)	
11:10 - 12:40	O1-3	Propagation Characteristics of Very Low Frequency Transmitter Signals in the Magnetosphere	Lunjin Chen*, Zhiyang Xia, and Wenyao Gu
	O1-4	Collaborative Study on Plasma Waves Simultaneously Observed by Arase and Van Allen Probes	Y. Kasahara*, S. Matsuda, Y. Miyoshi, F. Tsuchiya, A. Kumamoto, A. Matsuoka,O. Santolik, I. Kolmasova, G. Hospodarsky, C. Kletzing, C. Colpitts, and J. Wygant
	O1-5	Propagation of EMIC Waves and the Origin of pc1 Pearl Pulsations	Richard B Horne*
	O1-6	On the problem of whistler wave packet reflection from the ionosphere and exit to the ground	David Shklyar* and Sergey Prokhorenko
		Lunch (12:40 - 14:40)	
14:40 - 16:10	O2-1	Van Allen Probes Mission: a Remarkable Journey and Discoveries in Earth's Radiation Belts	Aleksandr Ukhorskiy*
Clilverd and Nakamura	O2-2	Wave-Particle Interaction Effects in the Van Allen Belts	Daniel N. Baker*
	O2-3	The Impenetrable Barrier: Suppression of Chorus Wave Growth by VLF Transmitters	John C. Foster*, Philip J. Erickson, Yoshiharu Omura and Daniel N. Baker
	O2-4	A Four-Belt Structure in Earth's Van Allen Belts	Allison N. Jaynes*, Dan N. Baker, Shri G. Kanekal, Xinlin Li, Connor Pollock, Hong Zhao
		Break(16:10 - 16:40)	

16:40 - 18:10	O2-5	Pitch angle scattering of radiation belt electrons by whistler waves during a quiet period oderately perturbed by substorm activity	J.-F. Ripoll*, M. Denton, D. Hartley, D. Malaspina, G. S. Cunningham, G. D. Reeves, O. Santolik, S. A. Thaller, V. Loridan, D. L. Turner, J. F. Fennell, W. S. Kurth, C.Kletzing and A. Y. Ukhorskiy
	O2-6	Radiation Belt Response to Interplanetary Shocks During the Declining Phase of Solar Cycle 24: Van Allen Probes Observations	S. G Kanekal*, A. Greeley, M. Pandya, D. N. Baker, Q. Schiller, L. Blum, D. G. Sibeck,Allison Jaynes, X. Li, H. Zhao
	O2-7	Wide energy electron precipitations by chorus waves: Arase-EISCAT coordinated observations	Y. Miyoshi*, K. Hosokawa, S. Saito, S. Kurita, S.-I. Oyama, Y. Ogawa, A. Kero,E. Turunen, S. Kasahara, S. Yokota, T. Hori, K. Keika, T. Mitani, T. Takashima,N. Higashio, I. Shinohara, Y. Kasahara, S. Matsuda, A. Kumamoto, F. Tsuchiya, A. Matsuoka
	O2-8	Multi-Point Measurements of Whistler Mode Waves in the Outer Van Allen Belt	O. Santolik*, G. B. Hospodarsky, Y. Kasahara, J. S. Pickett, S. Matsuda, Y. Miyoshi, W. S. Kurth, and C. A. Kletzing
		Group Photo (18:10 - 18:30)	
		Reception (18:30 - 20:30)	
22 (Sun)	Day 2		
9:10 - 10:40	O3-1	A review of recent observations of magnetospheric ELF/VLF waves by the PWING ground-based stations at subauroral latitudes with conjugate satellites	Kazuo Shiokawa*, Yuhei Takeshita, Mitsunori Ozaki , Claudia Martinez-Calderon, yrki Manninen, Shin-Ichiro Oyama, Martin Connors, Dmitry Baishev, Nozomu ishitani, Vladimir Kurkin, Alexey Oinats, Yoshiya Kasahara, Yoshizumi Miyoshi, Iku Shinohara, Craig Kletzing, Vania Jordanova

Rodger and Shinohara	O3-2	Multipoint Insights on Magnetopause Losses, Energetic Particle Injections, and Sources of Outer Radiation Belt Electrons	Drew L. Turner*, Ian J. Cohen, Kareem Sorathia, Sasha Ukhorskiy, Geoff D. Reeves, Christine Gabrielse, Joseph F. Fennell, and J. Bernard Blake
	O3-3	Role of Plasma Density for Chorus Modulation and Diffuse Aurora	Toshi Nishimura*, Wen Li, Paul Chin, Eric Donovan, and Vassilis Angelopoulos
	O3-4	Strong Diffusion of Energetic Electrons by Equatorial Chorus Waves in the Midnight-to-Dawn Sector	S. Kasahara*, Y. Miyoshi, S. Kurita, S. Yokota, K. Keika, T. Hori, Y. Kasahara, S. Matsuda, A. Kumamoto, A. Matsuoka, K. Seki, I. Shinohara
		Break(10:40 - 11:10)	
11:10 - 12:40	O3-5	Two Fundamental Models for Nonlinear Wave-Particle Interactions	Jay M. Albert*
	O3-6	Modeling of Whistler Mode Propagation and Wave-Particle Interactions	Mark Gołkowski*, Vijay Harid, Poorya Hosseini, and Oleksiy Agapitov
	O3-7	Frequency Dependence of VLF Chorus Poynting Flux in the Source Region:THEMIS Observations and a Model	Andrei G. Demekhov*, Ulrich Taubenschuss, and Ondrej Santolík
	O3-8	Chorus Element Properties: Statistics From Automated Chorus Detection	C. A. Kletzing*, A. Sen Gupta , I. W. Christopher, K. Rouabhi
12:40 - 18:10 Ebihara & Hsieh	P1-1-56	Lunch & Poster Session (56 posters)	
23 (Mon)	Day 3		
9:10 - 10:40	O4-1	Simulation Study of Nonlinear Properties of the Whistler-Mode Chorus Generation in the Magnetosphere	Y. Katoh* and Y. Omura
Bortnik & Amano	O4-2	Determinant role of field line inhomogeneity in the chirping direction of chorus	Xin Tao*, Yifan Wu, , Fulvio Zonca and Liu Chen
	O4-3	Particle Simulation of Plasmaspheric Hiss	Mitsuru Hikishima*, Yoshiharu Omura, Danny Summers

	O4-4	The Detection and Consequences of Coherent Electromagnetic Plasma Waves	Bruce T. Tsurutani*, Sang A Park, Jolene Pickett, Gurbax S. Lakhina, and Abhijit Sen
		Break(10:40 - 11:10)	
	O4-5	Two-dimensional general curvilinear particle-in-cell (gcPIC) simulation of rising-tone chorus waves in a dipole magnetic field	Quanming Lu*, Yangguang Ke, Xueyi Wang, Kaijun Liu, Xinliang Gao, Lunjin Chen, and Shui Wang
11:10 - 12:40	O4-6	Bayesian Identification of Chorus Sub-Packets from the Van Allen Probes	C. Crabtree*
	O4-7	Computer simulations of nonlinear interactions between EMIC waves and ions in the inner magnetosphere	Masafumi Shoji*, Yoshiharu Omura
	O4-8	Energetic Electron Precipitation Driven by Earth' s Magnetospheric Waves	Wen Li*, Xiaochen Shen, Luisa Capannolo , Qianli Ma,, Alex Green, Toshi Nishimura, and Shangchun Teng
12:40 - 18:10 Shoji & Martinez	P2-1-55	Lunch & Poster Session (56 Posters)	
18:30 - 20:10		Business Meetings (Invitation only)	

24 (Tue)	Day 4		
9:10 - 10:40	O5-1	The Demonstration and Science Experiments (DSX) Science Mission	James P. McCollough*, William R. Johnston, Gregory P. Ginet, Yi-Jiun Su, Michael J. Starks, Jay Albert, and the DSX Science Team
Lichtenberger & Saito	O5-2	Dynamics of High-Energy Radiation Belt Electron Fluxes in the Inner Magnetosphere and Their Relation to Solar Wind Driving	Jacob Bortnik*, Victor A. Pinto, Didier Mourenas, Hee-Jeong Kim, Pablo S. Moya, Larry L. Lyons, Harlan E. Spence, and Daniel N. Baker
	O5-3	Magnetic Local Time - resolved Examination of Radiation Belt Dynamics During Substorm Cluster Activity	Craig J. Rodger*, Drew L. Turner, Mark A. Clilverd, and Aaron T. Hendry
	O5-4	Ring Current-Radiation Belt Interaction Through Electromagnetic Ion Cyclotron Waves	Mei-Ching Fok*, Suk-Bin Kang, and Alex Glocer
		Break(10:40 - 11:10)	

11:10 - 12:40	O5-5	Direct Measurements of Two-Way Wave-Particle Energy Transfer in a Collisionless Space Plasma	Naritoshi Kitamura*, Masahiro Kitahara, Masafumi Shoji, Yoshizumi Miyoshi, Hiroshi Hasegawa, Satoko Nakamura, Yuto Katoh, Yoshifumi Saito, Shoichiro Yokota, Daniel J. Gershman, Adolfo F. Vinas, Barbara L. Giles, Thomas E. Moore, William R. Paterson, Craig J. Pollock, Christopher T. Russell, Robert J. Strangeway, Stephen A. Fuselier, and James L. Burch
	O5-6	On Relativistic Electrons in the Inner Belt and Slot Region: Inward Transport and Cosmic Ray Albedo Neutron Decay (CRAND) versus Various Wave Scatterings and Atmospheric Collisions	Xinlin Li * and Zheng Xiang
	O5-7	Contrasting Quasiperiodic Emissions at Small and Large Radial Distances	František Němec*, Ondřej Santolík, George B. Hospodarsky, Andrei G. Demekhov, Barbora Bezděková, Mychajlo Hajoš, William S. Kurth, David P. Hartley, and Michel Parrot
	O5-8	Cross-Frequency Wave Observations During Geomagnetic Storms with MMS	M. E. Usanova* and E. Radermacher
		Lunch (12:40 - 14:40)	
14:40 - 16:10	O6-1	Generation of Electron Whistler Waves at the Mirror Mode Magnetic Holes: MMS Observations and PIC Simulation	Narges Ahmadi*, Frederick Wilder, Robert Ergun, Matthew Argall , Maria Usanova, Hugo Breuillard, David Malaspina, Roy Torbert , Robert Strangeway, James Burch , Barbara Giles and Olivier Le Contel
	O6-2	MMS Observations of Poloidal and Toroidal Field Line Resonances	Guan Le* and Peter J. Chi
	O6-3	Magnetospheric Response to Solar Wind Forcing: ULF Wave – Particle Interaction Scenario	Qiugang Zong*
	O6-4	Implementing Realistic ULF Wave Mode Structure in the Quantification of Radial Diffusion Coefficients	Weichao Tu*, Mohammad Barani, Theodore Sarris, and Mary Hudson

		Break(16:10 - 16:40)	
16:40 - 18:10	O6-5	Radial transport of relativistic electrons through interaction with the ULF waves in the Earth's inner magnetosphere	Kanako Seki*, Kei Kamiya, Shinji Saito, Takanobu Amano, Yoshizumi Miyosh, Mei-Ching Fok, Colin Komar, Ayako Matsuoka, and Iku Shinohara
	O6-6	Rolled-up structures in relativistic electron energy spectrum: evidence for nonlinear ULF wave-particle drift resonance	Xu-Zhi Zhou*, Li Li, Yi-Fan Chen, Seth Claudepierre, Yoshiharu Omura, Qiu-Gang Zong
	O6-7	Magnetic Field Oscillations Observed by Swarm Satellites in the Nightside Upper Ionosphere During Low-Latitude Pi2 Pulsations	Khan-Hyuk Kim*, Jae-Hee Park, and Hyuck-Jin Kwon
	O6-8	Twisting of Magnetic Field Lines in the Ionospheric Flux Tube by Differential Compression	Lianghai Xie and Lou-Chuang Lee*
		Banquet (18:30 - 20:30)	
25 (Wed)	Day 5		
9:10 - 10:40	O7-1	The Turbulent Plasmasphere Boundary Layer: Wave-Particle Interactions	Evgeny. V Mishin*
Demekhov & Kitamura	O7-2	Plasma Waves Observed in Electron Diffusion Regions by MMS	J. L. Burch*, K. Dokgo, K.-J. Hwang, J. M. Webster, K. J. Genestreti, M. R. Argall, R.B. Torbert, D. B. Graham, R. C. Allen, O. Le Contel, R. E. Ergun, F. D. Wilder,B. L. Giles, and D. J. Gershman
	O7-3	An Optimal Algebraic Approach to Multi - Spacecraft Field Analysis	Gerard M. Chanteur*
	O7-4	Whistler waves around magnetic reconnection X-line	H. S. Fu*, Z. Wang, and D. Cao
		Break(10:40 - 11:10)	

11:10 - 12:40	O7-5	MMS Observation of Nonthermal Electron Acceleration Associated with High-Frequency Whistler Waves at Earth's Bow Shock	T.Amano*,T.Katou,N.Kitamura,M.Oka,Y.Matsumoto,M.Hoshino,Y.Saito,S.Yokota,B.L.Giles,W.R.Paterson,C.T.Russell,O.Le Contel,R.E.Ergun,P.-A.Lindqvist,D.L.Turner,J.F.Fennell,J.B.Blake
	O7-6	Whistler-Mode Waves Associated With Magnetic Reconnection at Earth's Dayside Magnetopause	Frederick D. Wilder*, Robert E. Ergun, Stefan Eriksson, Matthew R. Argall, David L. Newman, James M. Webster, Narges Ahmadi, Sanni Hoilijoki, James L. Burch, Roy B. Torbert, Barbara L. Giles, R. J. Strangeway
	O7-7	Preferential Ion and Electron Heating during Magnetic Reconnection	Masahiro Hoshino*, Kaori Watanabe and Kunihiro Keika
	O7-8	Electron physics near the X-line in asymmetric magnetic reconnection	Seiji Zenitani*, Hiroshi Hasegawa, Tsugunobu Nagai
		Lunch (12:40 - 14:40)	
14:40 - 16:10	O8-1	MeV electrons observed at the plasma sheet boundary	I. Shinohara*, T. Nagai, T. Mitani, N. Higashio, S. Kasahara,Y. Kazama, S. Y. Wang, S. W. Y. Tam, A.Matsuoka, K. Asamura,S. Yokota, T. Takashima, and Y. Miyoshi
Manninen & Kojima	O8-2	Severe Erosion of the Plasmasphere or Notch or Something Else?	János Lichtenberger*, Dávid Koronczay, Csaba Ferencz, Orsolya Ferencz, Péter Steinbach, Mark Clilverd, Craig Rodger, Dmitry Sannikov, Nina Cherneva and Rustam Karimov
	O8-3	Towards Developing a Nowcasting Solar Flare Capability Using Subionospheric VLF Radio: Addressing the ICAO Call for Global Aviation	Mark A. Clilverd* Craig J. Rodger, Harriet George, Kathy Cresswell-Moorcock, Sophie Cook, James B. Brundell, Neil R. Thomson
	O8-4	Nonlinear Wave Growth Analysis of Whistler-Mode Chorus Generation Regions on the Basis of Coupled MHD and Advection Simulation of the Inner Magnetosphere	Yusuke Ebihara*, Takuya Ikeda, Yoshiharu Omura, Takashi Tanaka, and Mei-Ching Fok
		Break(16:10 - 16:40)	

16:40 - 18:10	O8-5	Generation mechanism of lower band and upper band whistler-mode chorus emissions in the inner magnetosphere	Yoshiharu Omura*, and Yi-Kai Hsieh
	O8-6	The Beam Plasma Interactions Experiment (Beam PIE): Wave Generation and Particle Interaction Using a Compact Linear Electron Accelerator	Geoff Reeves*, Bruce Carlsten, Gian Luca Delzanno, William Farrell, Philip Fernandes, Michael Holloway, Rob Pfaff, Doug Rowland, Vadim Roytershteyn, Marilia Samara, and Kateryna Yakymenko
	O8-7	Active Experiments in the Inner Radiation Belt	Konstantinos Papadopoulos*
	O8-8	Harnessing the Dual Nature of Plasma Turbulence in the Near-Earth Space Environment	G. Ganguli*
18:10 - 18:30		Closing	

* Food and drink are served.

Paper No.	Paper Title	Authors
22 (Sun)	**Poster Session 1**	Chairs: Ebihara & Hsieh
P1-1	Application of Magneto-Impedance Sensor to Geomagnetic Field Measurements for Constructing Distributed Arrays of Small Instruments (DASI)	Hiroshi Nomura*, Masahito Nosé, Hitoshi Aoyama, Takeshi Kawano, and Masafumi Hirahara
P1-2	Observations of Ionospheric Parameters using EISCAT Radar and Its Comparison with model predictions	Geletaw B.*, Melessew N., Baylie D., Seydie M.
P1-3	Molecular ion upflow observed by the EISCAT radar in conjunction with the Arase (ERG) satellite during the September 7, 2017 magnetic storm	Masayoshi Takada*, Kanako Seki, Yasunobu Ogawa, Kunihiro Keika, Satoshi Kasahara, Shoichiro Yokota, Tomoaki Hori, Kazushi Asamura, Yoshizumi Miyoshi, Iku Shinohara
P1-4	In Situ and Remote Observations of High-Energy Electrons in Pulsating Aurora Using All-Sky Imagers, Van Allen Probes, and PFISR	R. N. Troyer*, A. N. Jaynes, S. L. Jones, R. G. Michell, M. Samara, S.R. Kaeppler, R. Varney, A. Reimer, and D. L. Hampton
P1-5	Electron Scattering Effect of VLF Transmitters on L Shells < 3.0	Man Hua*, Wen Li, Qianli Ma, and Binbin Ni
P1-6	The Applicability of the Lowest Part of the ELF Range (<100 Hz) for Remote Sensing the Atmosphere-Ionosphere-Magnetosphere System	Tamás Bozóki*, Gabriella Sátori, Péter Steinbach, József Bór, Tamás Pető, Earle Williams, Irina Mironova
P1-7	Response of the Mesosphere and Lower Ionosphere to an Extremely Severe Cyclone "Fani" of May, 2019 over the Indian Ocean	Sujay Pal*, Shubham Sarkar, Subrata Kumar Midya, Sushanta Kumar Mondal and Yasuhide Hobara
P1-8	Mid-Latitude Ionospheric Response to the Super Geomagnetic Storm of March 2015	Sushanta K. Mondal*, Sujay Pal, Mahabub Rahaman , and Subrata K.Midya
P1-9	Occurrence Characteristicsof Electromagnetic Ion Cyclotron Waves at Sub-Auroral Ground Station Maitri	Aditi Upadhyay*, Bharati Kakad, Amar Kakad, Yoshiharu Omura and Ashwini K. Sinha
P1-10	Monitoring of Seismo-Ionospheric Changes and Meteorological Influences on the Ionosphere from a Low atitude Station at Cooch Behar, India	Prabir Kumar Haldar*, Bakul Das and Sujay Pal
P1-11	Observations of Low-Frequency Electromagnetic Waves and Auroras at Kola Peninsula and Scandinavia During ERG Flybys	A. G. Demekhov*, B. V. Kozelov, T. A. Popova, A. G. Yahnin, A. S. Nikitenko, Yu. V. Fedorenko, A. V. Roldugin, E. E. Titova, and J. Manninen

P1-12	Simultaneous Spacecraft and Ground-Based Observation of QP Emissions with Two Modulation Periods	Mychajlo Hajoš*., Andrei Demekhov, Dmitry Pasmanik., Ondřej Santolík, Alexandr Nikitenko, and Jyrki Manninen
P1-13	Analysis of VLF Band Waves in the Sq Current System Observed by S-310-44 Sounding Rocket	Taketoshi Miyake*, Ryuichiro Nakamura, Keigo Ishisaka, Takumi Abe, Atsushi Kumamoto and Makoto Tanaka
P1-14	Turbulent Signatures in the Polar Cusp Ionosphere using sounding rocket mission observations	F. Di Mare*, J. I. Moen, L. B. N. Clausen, and A. Spicher
P1-15	Characteristics of ELF/VLF Emissions From Multi-Point Ground and Space Conjugated Events	C.Martinez-Calderon*, Y.Katoh, J.Manninen, O.Santolik, Y.Kasahara, S.Matsuda, A.Kumamoto,F.Tsuchiya, A.Matsuoka, M.Shoji, M.Teramoto, I.Shinohara, K.Shiokawa and Y.Miyoshi
P1-16	Is a Near-Equatorial Free Energy Source Necessary to Generate Latitudinally Limited Equatorial Noise?	Kyungguk Min*, Kaijun Liu, Richard E. Denton, Scott A. Boardsen, and František Němec
P1-17	Conjugate Observations of QP Emissions by Kannuslehto Station and RBSP	B. Bezdekova*, F. Nemec, J. Manninen, G. B. Hospodarsky, O. Santolik , W. S.Kurth, and D. P. Hartley
P1-18	Long-lasting strong whistler echo trains associated with a North-European winter storm	I. Kolmašová*, O. Santolík, J. Manninen, J. Lichtenberger, R. Lán, and L. Uhlíř
P1-19	First Results of the Simultaneous Observations of Auroral Hiss at Three Stations Located at Auroral and Polar Latitudes	Yury V. Fedorenko, Alexander S. Nikitenko*, Jyrki Manninen, Natalia G. Klemenova, Alexey V. Larchenko, Sergey V. Pilgaev, Liudmila I. Gromova, and Olga M. Lebed
P1-20	High-Latitude Auroral Hiss: Observations and Modelling	Alexander S. Nikitenko*, Olga M. Lebed, Yury V. Fedorenko , Jyrki Manninen , Natalia G. Kleimenova , and Liudmila I. Gromova
P1-21	Ground-based VLF emissions observed in the frequency range 16-39 kHz: campaigns 2017–2018	Edith L. Macotela*, Jyrki Manninen
P1-22	Van Allen Probes Science Gateway	Giuseppe Romeo*, Aleksandr Ukhorskiy, and Tom Sotirelis
P1-23	The Use of Ground-Detected Whistler-Mode Chorus Waves to Monitor the Source Population for Radiation Belts Modeling	L. Juhasz*, J. Lichtenberger, Y. Omura, R. Friedel and M. Clilverd

P1-24	The Angular Distribution of Whistler-Mode Chorus and the Importance of Plumes in the Chorus-Hiss Mechanism	David P. Hartley*, Lunjin Chen, Craig A. Kletzing, Richard B. Horne, Ondrej Santolík
P1-25	Dynamics of Relativistic Electrons in the Slot Region duing Geomagnetically Quiet Times: Losses due to Various Wave-Particle Interactions Versus Source from Cosmic Ray Albedo Neutron Decay(CRAND)	Zheng Xiang*, Xinlin Li , Binbin Ni, M.A.Temerin, Hong Zhao, Kun Zhang and Leng Ying Khoo
P1-26	Direct detection of nonlinear generation process of electromagnetic ion cyclotron emissions observed by the Arase spacecraft	M. Shoji*, Y. Miyoshi, L. M. Kistler, K. Asamura, Y. Kasaba, S. Matsuda, Y. Kasahara,A. Matsuoka, M. Teramoto, T. Takashima, and I. Shinohara
P1-27	Pitch-Angle Diffusion of Energetic Protons Upon Their Interaction With EMIC Waves: Comparison of Calculation Results With THEMIS and NOAA/POES Data	Tatiana A. Popova*, Andris A. Lyubchich, Andrei G. Demekhov and Alexander G. Yahnin
P1-28	Identifying the Driving Process of IPDP-type EMIC Waves	Aaron T. Hendry*, Ondřej Santolík, Craig A. Kletzing, Ian R. Mann, Kazuo Shiokawa, Martin Connors
P1-29	Pitch Angle Scattering by Electrostatic Electron Cyclotron Harmonic Waves Based on Arase Observations	M. Fukizawa*, T. Sakanoi, Y. Miyoshi, Y. Kazama, Y. Kasahara, S. Matsuda, A.Matsuoka, S-Y. Wang, S. W-Y. Tam
P1-30	Observations of Triggered EMIC Emissions by ARASE: 2017/11/14 and 2017/10/24 case studies	B. Grison*, A. Hendry, M. Shoji, O. Santolik, Y. Miyoshi, K. Asamura, A.Matsuoka, Y. Kasahara, and I. Shinohara
P1-31	Rapid acceleration of energetic protons by electromagnetic ion cyclotron waves in the Jovian magnetosphere	Tomohiro Sekine*, Yoshiharu Omura, Danny Summers , Satoko Nakamura, and Yikai Hsieh
P1-32	Rapid Precipitation of Relativistic Electron by EMIC Rising - Tone Emissions Observed by the Van Allen Probes	S. Nakamura*, Y. Omura, C. Kletzing, and D. N. Baker
P1-33	Radiation Belt Relativistic Electron Depletions During Intense Geomagnetic Storms	Sneha A. Gokani,*, Desheng Han, and R. Selvakumaran
P1-34	Statistical Study of EMIC Wave-Related Electron Precipitation: Ground-Based Magnetometer and Subionospheric VLF/LF Radio Measurements	A.Hirai*,F.Tsuchiya,T.Obara,Y.Kasaba,Y.Katoh,H. Misawa,K.Shiokawa,Y.Miyoshi,S.Kurita, and Martin Connors

P1-35	Spatial Distributions of EMIC Waves Depending on Geomagnetic Conditions During the Van Allen Probes and ERG era	C.-W Jun*, Y. Miyoshi, C. Yue, J. Bortnik, L. Lyons, Y. Nishimura, C. Kletzing, Y. Kasahara, Y. Kasaba, S. Matsuda, M. Shoji, F. Tsuchiya, A. Kumamoto, A. Matsuoka, and I. Shinohara
P1-36	Electromagnec Ion Cyclotron(EMIC) Waves in the Lunar Wake:Simultaneous observaons by ARTEMIS P1 and P2	Biswajit Ojha*, Satyavir Singh, Gurbax S.Lakhina, and Yoshiharu Omura
P1-37	Foreshock Transient Generated ULF Waves in the Magnetosphere	Hui Zhang*, Xiaochen Shen, Liangliang Zhao, Qiugang Zong, Quanqi Shi, and Boyi Wang
P1-38	Energetic Electron Precipitations Showing ULF Modulation of VLF/LF Standard Radio Waves	Hiroyo Ohya*, Takuya Miyashita, Fuminori Tsuchiya, Mitsunori Ozaki, Yoshizumi Miyoshi, Kazuo Shiokawa, Nozomu Nishitani, Martin Connors, and Simon G. Shepherd
P1-39	Relative Contribution of ULF and Chorus Waves to the Radiation Belt Variation	N. Takahashi*, K. Seki, Mei-Ching Fok, Yihua Zheng, Yoshizumi Miyoshi, Satoshi Kasahara, Kunihiro Keika, David Hartley, Yoshiya Kasahara, Yasumasa Kasaba, Nana Higashio, Ayako Matsuoka, Shoichiro Yokota, Tomoaki Hori, Iku Shinohara
P1-40	Study of the Excitation Mechanism of Storm-Time Pc5 ULF Waves by Ring Current Ions Based on the Drift-Kinetic Simulation	T. Yamakawa*, K. Seki, T. Amano, N. Takahashi, and Y. Miyoshi
P1-41	Roles of Magnetospheric Convection on Nonlinear Drift Resonance Between Electrons and ULF Waves	Li Li, Yoshiharu Omura, Xu-Zhi Zhou*, Qiu-Gang Zong, Sui-Yan Fu, Robert Rankin, Alexander W. Degeling
P1-42	Acceleration of Energetic Electrons by the Auroral Kilometric Radiation	Veronika S. Grach*, Andrei G. Demekhov
P1-43	Automatic Identification on Lower-Band Chorus Elements with Mask Region-based Convolutional Neural Network	Jieh-Yun Chang*, Kai-Yu Chang, Yu-Tung Chang, Chieh-Hsi Chen, Yu-Wei Chen, and Jih-Hong Shue
P1-44	Global Modeling of the Storm-Time Magnetosphere With Empirical Ring Current Pressure	V. G. Merkin*, K. A. Sorathia, G. K. Stephens, A. T. Michael, M. I. Sitnov, A. Y.Ukhorskiy, J. Garretson, J. G. Lyon
P1-45	Nonlinear effects in the evolution of Weibel instability	M. A. Garasev*, E. V. Derishev
P1-46	An automatic identification on elements of whistler-mode chorus waves	Yu-Wei Chen*, Jieh-Yun Chang, Tse Chen, Jih-Hong Shue

P1-47	Probing a Post Monsoon Mesoscale Convective System and Upward Electric Discharges Over Indian Low Latitude Region	Adarsh Dube*, Ajeet K. Maurya, Rajesh Singh
P1-48	The Effect of Plasma Boundaries on the Dynamic Evolution of Relativistic Radiation Belt Electrons	Dedong Wang*, Yuri Y. Shprits, Irina S. Zhelavskaya, Alexander Y. Drozdov, Nikita A. Aseev, Frederic Effenberger, Angelica Castillo, and Sebastian Cervantes
P1-49	A statistical study of the relationship between Pc1 wave propagation and ionospheric plasma density structures	Hyangpyo Kim*, Kazuo Shiokawa, Jaeheung Park , Yoshizumi Miyoshi, and Junga Hwang
P1-50	Pi2 pulsations observed by the Arase satellite inside and outside the plasmasphere	M.Teramoto*,A.Matsuoka,Y.Kasahara,Y.Kasaba, A.Kumamoto,F.Tsuchiya,S.Matsuda,M.Nosé,R.Nomura,S.Kurita,M.Shoji,S.Imajo,Y.Miyoshi, and I.Shinohara
P1-51	Observations of the Source Region of Whistler Mode Waves in Magnetosheath Mirror Structures	Naritoshi Kitamura*,Yoshiharu Omura,Satoko Nakamura,Takanobu Amano,Scott A.Boardsen,Narges Ahmadi,Olivier Le Contel,Per-Arne Lindqvist,Robert E. Ergun,Yoshifumi Saito,Shoichiro Yokota,Daniel J. Gershman,William R. Paterson,Craig J. Pollock,Barbara L. Giles,Christopher T.Russell,Robert J. Strangeway,and James L.Burch
P1-52	A Systematic Study in Characteristics of Lower Band Rising-Tone Chorus Elements	Jih-Hong Shue*, Yasuhiro Nariyuki, Yuto Katoh, Shinji Saito, Yoshiya Kasahara, Yi-Kai Hsieh, Shoya Matsuda, Yoshitaka Goto
P1-53	Study of Electron PAD evolution using Van Allen Probes	B. Veenadhari*, Megha Pandya, Y. Ebihara, and S. G. Kanekal
P1-54	The ballooning instability: MHD and kinetic approaches	Dmitri Klimushkin*, Pavel Mager, and Alexander Rubtsov
P1-55	Experimental evidence of transverse Alfvenic resonator for Pc4 waves: A Van Allen Probes Case Study	Olga S. Mikhailova*, Pavel N. Mager, Olga V. Mager and Dmitri Yu. Klimushkin
P1-56	Dispersion analysis of foreshock waves on ion-to-electron scales using MMS spacecraft data	Yasuhito Narita*

23 (Mon)	**Poster Session 2**	Chairs: Shoji & Martinez
P2-1	Chorus wave interactions with ultra-relativistic electrons	Hayley J. Allison*, Yuri Y. Shprits, Irina S. Zhelavskaya, and Dedong Wang
P2-2	On How High-Latitude Chorus Waves Tip the Balance Between Acceleration and Loss of Relativistic Electrons	Dedong Wang*, Yuri Y. Shprits
P2-3	Alfven wave parallel electric field in the dipole model of the magnetosphere	Danila V. Kostarev*, Pavel N. Mager, and Dmitriy Yu. Klimushkin
P2-4	Plasmasheet Dynamics and the Radiation Belts: Preliminary Results from Stormtime Simulations Using GAMERA-RCM	K. Sorathia*, V. Merkin, A. Ukhorskiy, A. Michael, and F. Toffoletto
P2-5	Anomalous Trapping of Low Pitch Angle Electrons by Coherent Whistler Mode Waves	Masahiro Kitahara* and Yuto Katoh
P2-6	Study of the Pitch Angle Scattering of Small Pitch Angle Electrons by Coherent Whistler-Mode Waves	G. Ishizawa*, Y. Katoh, M. Kitahara, A. Kumamoto, T. Kimura, and Y. Kawazura
P2-7	Evolution of Relativistic Electron Fluxes affected by oblique chorus emissions	Yikai Hsieh*, Yuko Kubota, and Yoshiharu Omura
P2-8	Electron Pitch-Angle Scattering by Oblique Whistler Waves: Comparion between Test Particle Simulation and Quasi-Linear Theory	Fumiko Otsuka*, Kaiti Wang, Tohru Hada, and Shuichi Matsukiyo
P2-9	Combined Scattering of Radiation Belt Electrons Caused by Cyclotron, Landau and Counce Resonance with Low-Frequency Hiss	Juan Yi, Binbin Ni*, Song Fu, Danny Summers, Ruoxian Zhou, Xudong Gu
P2-10	Boris-type particle solvers in particle-in-cell (PIC) simulation	Seiji Zenitani*, Kato N. Tsunehiko, Takayuki Umeda
P2-11	Some Results of Theoretical Study on Quasiperiodic VLF Emissions	P.A. Bespalov*
P2-12	Chorus Emissions Triggered by the Shot Electromagnetic Noise	P.A. Bespalov*, and O.N. Savina
P2-13	Particle simulation of whistler mode triggered emissions in a uniform magnetic field	Yuya Fujiwara*, Yoshiharu Omura, Yikai Hsieh , Takeshi Nogi , and Satoko Nakamura
P2-14	Electromagnetic Particle Simulation of VLF Triggered Emissions	Takeshi Nogi*, Yoshiharu Omura, and Satoko Nakamura
P2-15	Modeling of the Fine Structure of Chorus Emissions Using the Nonlinear Growth Theory	Miroslav Hanzelka*, Ondřej Santolík, Yoshiharu Omura, Ivana Kolmašová, and Craig A. Kletzing

P2-16	Conjugate Observations of Pc1 Waves on the Ground and Onboard ERG and Van Allen Probes and Related Variations of Energetic Ion Flux	A.G.Demekhov*, T.A.Popova, A.G.Yahnin, S.Yokota, S.Kasahara, K.Keika, T.Hori, F.Tsuchiya, A.Kumamoto, Y.Kasahara, A.Matsuoka, M.Shoji, Y.Miyoshi, I.Shinohara, and T.Raita
P2-17	A Statistical Characteristics of Pc1 Pulsations Observed at Low-Latitude	Jiwoo Kim*, Junga Hwang, Hyangpyo Kim, and YuYi
P2-18	Arase observation of electron pitch angle scattering by Electrostatic Cyclotron Harmonic waves	S. Kurita*, Y. Miyoshi, S. Kasahara, S. Yokota, Y. Kasahara, S. Matsuda,A. Matsuoka, K. Keika, T. Hori, and I. Shinohara
P2-19	What Do Multicomponent VLF Wave Records Tell on Entry Altitudes of Guided Propagation in the Plasmasphere?	P. Steinbach*, L. Juhász, O. Ferencz, J. Bór , and J. Lichtenberger
P2-20	MLT Dependence of Contribution of Charge Exchange Loss to the Storm Time Ring Current Decay: Van Allen Probes Observations	S. Y. Li*, H. Luo
P2-21	Coherent D Region Ionospheric Sounding with Loran C	Steven A. Cummer*, Zilong Qin, Fanchao Lyu , and Mingli Chen
P2-22	Characteristics of Whistler Source Lightning	Steven A. Cummer*, János Lichtenberger, and Dá vid Koronczay
P2-23	CANVAS: A CubeSat Mission to Measure the Distribution of VLF Energy Injected Into the Magnetosphere by Ground-Based Sources	Riley A. Reid*, Robert A. Marshall, David M. Malaspina, Scott E. Palo
P2-24	Nonlinear Analysis of Generation Region of Whistler-Mode Chorus Waves in the Inner Magnetosphere Under Various Solar Wind Conditions	Hiroki Shimamoto*, Yusuke Ebihara, Yoshiharu Omura, Takuya Ikeda, Takashi Tanaka and Mei-Ching Fok
P2-25	Spectral Broadening of NWC Transmitter Signal	Zhiyang Xia*, and Lunjin Chen
P2-26	An Analysis of Slow-Shock and Slow Shock-Like Structures Observed in the 2D Hybrid Magnetic Reconnection Simulations	Nehpreet K. Walia*, Kanako Seki, and Takanobu Amano
P2-27	High-Frequency Wave Generation near the Electron Diffusion Region	Kyunghwan Dokgo*, Kyoung-Joo Hwang, James L. Burch, Eunjin Choi, Peter H. Yoon, David G. Sibeck, and Daniel B. Graham
P2-28	Energetic Electron Acceleration in Unconfined Reconnection Jets	G. Chen*, H. S. Fu, and Y. Zhang, Xiaocan Li,Y. S. Ge, A. M. Du, C. M. Liu, Y. Xu

P2-29	PIC Simulation on non-Linear Developments of Lower-Hybrid Instabilities Driven by Energetic Ions	T. Kotani*, M. Toida, T. Moritaka and S. Taguchi
P2-30	Variation of Dayside Chorus Waves Associated with Solar Wind Dynamic Pressure Based on MMS Observations	Rongxin Tang*, Qianshui Peng, Haimeng Li, Kai Yuan and Yuhao Wang
P2-31	Modulation Of Whistler-Mode Waves By Ultra-Low Frequency Wave In a Magnetic Hole: MMS Observation	He Zhang, Rongxin Tang*, Kai Yuan, Yuhao Wang, X.H. Deng and M Zhou
P2-32	Evolution of Turbulence in the Kelvin–Helmholtz Instability in the Terrestrial Magnetopause	F. Di Mare*, L. Sorriso-Valvo, A. Retinò , F. Malara and H. Hasegawa
P2-33	Observations of Waves and Pitch Angle Distributions of Electrons at Dipolarization sites	K. Wang*, F. Otsuka, T. Hada, C. H. Lin
P2-34	An unexpected whistler wave generation around dipolarization fronts	H. S. Fu* and G. Chen
P2-35	Monitoring Energetic Lightning in Southeast Asia using ELF magnetic field observations in Malaysia	Y. Hobara*, H. Kikuchi, C. Gomes , A. Mohamed , M. Stock and K. Shiokawa
P2-36	F- Layer Critical Frequency deduced from Lightning Whistlers	S.Hirai, Y.Hobara*, S Kanazawa and J.L.Pinçon
P2-37	Medium Frequency Broadcasting Waves and Other Emissions Observed by the Arase Satellite (Hectometric Line Spectra)	Kozo Hashimoto*, Fuminori Tsuchiya, Atsushi Kumamoto, Yoshiya Kasahara, Yoshizumi Miyoshi, Yuichi Otsuka, Atsuki Shinbori, Tatsuhiro Yokoyama, Isamu Nagano, Ayako Matsuoka
P2-38	Relativistic electron precipitation associated with pulsating aurora observed by VLF radio propagation: A case study	F.Tsuchiya*,A.Hirai,T.Obara,H.Misawa,S.Kurita,Y.Miyoshi,K.Shiokawa,M.Connors,M.Ozaki,Y.Kasahara,A.Kumamoto,Y.Kasaba,A.Matsuoka,M.Shoji,I.
P2-39	The strong emissions in the ionosphere associated with the fluxes of the energetic electrons and temperature variations above the thunderstorms	Jan Błęcki*, Jan Słomiński, Roman Wronowski, Sergey Savin, Rafał Iwański , Michel Parrot, and Roger Haagmans
P2-40	High Resolution Plasmaspheric Electron Density Measurement on the Van Allen Probes	David Koronczay*, Janos Lichtenberger, and William Kurth

P2-41	A Method for Estimation of Cold Plasma Density Using Phase Delay of Chorus Waves Observed by two MMS Spacecraft	Keita Takahashi*, Yoshiharu Omura, Naritoshi Kitamura, Satoko Nakamura, Yikai Hsieh, Olivier Le Contel, Narges Ahmadi, Christopher T. Russell
P2-42	Correlations of low-energy electrons with chorus emissions observed by ERG: An event study	Y. Kazama*, H. Kojima, Y. Miyoshi, Y. Kasahara, H. Usui, I. Shinohara, B.-J. Wang, S.-Y. Wang, S. W. Y. Tam, T.-F. Chang, K. Asamura, A. Kumamoto, F. Tsuchiya,Z. Kasaba, S. Matsuda, M. Shoji, A. Matsuoka, M. Teramoto, and T. Takashima
P2-43	Recurrent Inner Magnetosphere Chorus Waves Observation Following Corotating Interaction Region	Livia R. Alves*, Graziela B. da Silva, L. A. da Silva, Antonio L. Padilha, David G. Sibeck, Shrikanth G. Kanekal, J. Bernard. Blake , Craig Kletzing, Daniel Baker
P2-44	Ring current proton heating by magnetosonic waves: Comparisons between test particle simulations and quasi-linear theory calculations	Ruoxian Zhou, Song Fu*, Binbin Ni, Xing Cao, Man Hua, and Xudong Gu
P2-45	The lower ionospheric anomalous response to the Solar Flares: revealed using Very Low Frequency waves	Ajeet K. Maurya*, Rajesh Singh
P2-46	Numerical Study of Proton Dynamics in South Atlantic Anomaly using Test Particle Simulations	Kirolosse M. Girgis*, Tohru Hada, and Shuichi Matsukiyo
P2-47	Analysis of Plasmaspheric Hiss by Arase Spacecraft	Tomoya Ito*, Satoko Nakamura, Yoshiharu Omura, and Hirotsugu Kojima
P2-48	Field-Aligned Electron Density Distribution in the Inner Magnetosphere Obtained From Coordinated Observations of Arase and Van Allen Probes	Yuki Obana*,Yukinaga Miyashita,Naomi Maruyama,Atsuki Shinbori,Masahito Nosé,Yuichi Otsuka,Atsushi Kumamoto,Fuminori Tsuchiya,Shoya Matsuda,Ayako Matsuoka,Yoshiya Kasahara,Yoshizumi Miyoshi,Iku Shinohara,William S.Kurth,Craig A.Kletzing,Charles W.Smith and Robert J. MacDowall
P2-49	Isolated Electrostatic Potential Structures Observed by the Arase Satellite	Tomoe Taki*, Hirotsugu Kojima, Yoichi Kazama, Yoshiya Kasahara, Yoshizumi,Miyoshi, Iku Shinohara, Hideyuki Usui, Shoya Matsuda, Wang S.-Y., Tam Sunny W.Y., and Ayako Matsuoka

P2-50	Identifying the Physical Mechanisms to Explain the Extreme Plasmaspheric Erosion for the September 2017 Storm	Naomi Maruyama*, Andrew Menz, Yuki Obana, Mei-Ching Fok, Cristian Ferradas, Atsuki Shinbori, Kumiko K. Hashimoto, Mariangel Fedrizzi, Masahito Nosé, Yuichi Otsuka, Nozomu Nishitani, Tomoaki Hori, Atsushi Kumamoto, Fuminori Tsuchiya, Shoya Matsuda, Ayako Matsuoka, Yoshiya Kasahara, Akimasa Yoshikawa, Yoshizumi Miyoshi and Iku Shinohara
P2-51	Quantifying Outer Belt Electron Losses due to Wave-Particle Interactions: A Multiscale Modeling Approach	A. T. Michael, K. A. Sorathia*, A. Y. Ukhorskiy, and V. G. Merkin
P2-52	Automated Detection and Extraction of ELF/VLF Signals using Mask Regional Convolutional Neural Network	Vijay Harid*, Mark Golkowski, Chao Liu , Yan Pang, and Morris Cohen
P2-53	Evaluation of Automatic Electron Density Determination by using a Convolutional Neural Network	S. Matsuda*, T. Hasegawa, A. Kumamoto, F. Tsuchiya, Y. Kasahara,Y. Miyoshi, Y. Kasaba, A. Matsuoka, I. Shinohara
P2-54	Development of the chip implemented as high-speed current detection circuits for particle sensors	Motoyuki Kikukawa*, Hirotsugu Kojima, Kazushi Asamura,and Yoshifumi Saito
P2-55	From Van Allen to REAL	Thomas Sotirelis*, Robyn Millan, John Sample, and Drew Turner
P2-56	SuperSID@Paris-Observatory: results and perspectives	Briand C.*, Inturi S., Cecconi B.