

Monday February 15th, 2021

** Please note that all times that are listed are in EST.

Session I

Eric Donovan, Chair

- 10:30 **Opening Remarks and Tributes to Wallis & Tsuruda**
- 10:50 Baraka, S., and R. Rankin
Deriving the Earth's magnetopause shape in the equatorial plane under the influence of radial IMF as simulated by 3D Kinetic model.
- 11:10 Arnal, J., and C. Groth
Toward Heliospheric Data Assimilation of the Solar Wind: Results for One-Dimensional MHD Flows
- 11:30 Robert Rankin, Wei Shen, and Dmytro Sydorenko
The Ionospheric Feedback Instability: Problems and Alternatives
- 11:50 Liang, J., D. Sydorenko, R. Rankin, and E. Donovan
Modeling of ionospheric UV emission for the SMILE mission
- 12:10 Meziane, K. A. Kashcheyev, P. T. Jayachandran, and A. M. Hamza
An Empirical Model of Ionospheric Scintillation for the Polar Region

Break

Session II

Kathryn McWilliams, Chair

- 13:30 Babu, S., I. Mann, S. Dimitrakoudis, L. Ozeke, I. Rae, and A. Smith
Probing the magnetospheric substorm onset mechanism using pitch angle resolved GOES satellite energetic particle data
- 13:50 R. Ghaffari, C. M. Cully, and C. Gabrielse
Whistler-mode Wave Generation and Pitch Angle Diffusion during Energetic Electron Injections
- 14:10 Billett, D., G. Perry, L. Clausen, W. Archer, K. McWilliams, S. Haaland, and J. Burchill
Large scale thermospheric density enhancements in relation to downward Poynting fluxes: Statistics from CHAMP, AMPERE and SuperDARN.
- 14:30 Cameron, T., R. Fiori, and T. Thayaparan
Effects of Ionospheric Disturbances on HF Radio Propagation Paths
- 14:50 Connors, M., and E. Donovan
Spectral Analysis of Pulsating Aurora Optical Emissions
- 15:10 Chaddock, D., E. Donovan, E. Spanswick, R. Potter, M. Gillies, R. Rankin, F. Fenrich, J. Kuzub, K. McWilliams, M. Sohrabi, and I. Rosito
AuroraX – A Scientific and Public Outreach Cyber Initiative

Tuesday February 16th, 2021

Session I

Rob Gillies, Chair

- 10:30 Gillies, D. M., J. Liang, E. Donovan, and E. Spanswick
The Apparent Motion of STEVE and Picket Fence Phenomena
- 10:50 Fenrich, F., R. Rankin, D. Sydorenko, W. Archer, D. Knudsen
Birkeland Current Boundary Flows Associated with Field Line Resonances
- 11:10 Arnason, K., E. Spanswick, L. Behjat, and A. Fakheri Tabrizi
Data Quality Validation of Ground Based Riometers
- 11:30 Bland, C., and A. Kouznetsov
Cosmic Ray Diurnal Variations during the Solar-Wind Disappearance Event in May 1999.
- 11:50 Sanchez, D., N. Frissell, G. Perry, A. Coster, P. Erickson, W. Engelke, J. Ruohoniemi, and J. Baker
Using high frequency amateur radio transmissions to detect and study travelling ionospheric disturbances
- 12:10 Mohandesir A., D. Knudsen, S. Skone
A Novel Approach to Study the Vertical Distribution of Multi-Scale Equatorial Ionospheric Irregularities Using High-Rate e-POP Measurements

Break

Session II

Jun Liang, Chair

- 13:30 Galeschuk, D., G. Hussey, D. Huyghebaert, A. Lozinsky, K. McWilliam
Phase Calibration of the ICEBEAR radar using Cygnus A
- 13:50 Huyghebaert, D., K. McWilliams, G. Hussey, A. Howarth, S. Erion, and P. Rutledge
Comparisons Between E-region Coherent Scatter and Swarm-E Fast Auroral Imager Measurements
- 14:10 Gillies, R., R. Varney, and E. Donovan
Polar patches created by fast azimuthal flows observed by the RISR radars
- 14:30 Prikryl, P., R. Gillies, D. Themens, B. Kunduri, R. Varney, and J. Weygand
Polar cap patches, GPS TEC variations, and atmospheric gravity waves
- 14:50 C. Watson, D. Themens, and P. Jayachandran
Validation of High-Latitude Precipitation-Enhanced Ionosphere Density Profiles Derived from Satellite-Based UVI Imager Data

Tuesday February 16th, 2021 (continued)

Session III

Megan Gillies, Chair

- 15:30 Goodwin, L., and G. Perry
Resolving F-region high-latitude plasma density structures and irregularity spectra using Resolute Bay ISR-Canada and Resolute Bay ISR-North measurements
- 15:50 Lomidze, L., D. Knudsen, and M. Shepherd
Observation and Multi-model Analysis of Topside Ionosphere Equinoctial Asymmetry
- 16:10 Cully, C., S. Lejosne, J. Ripoll, D. Turner, G. Reeves, D. Gillies, E. Donovan, E. Spanswick, and S. Thaller
The association between slot-filling injections and subauroral (STEVE) emissions

Wednesday February 17th, 2021

Session I

Chris Cully, Chair

- 10:30 Kouznetsov, A
Quantum Mechanical Correction to the Photoelectron Stopping Power
- 10:50 Pakhotin, I., and I. Mann
Small-Scale Pedersen Conductance and Scale Height Passive Sounding using Swarm E- and B-field Observations
- 11:10 Wu, J., and D. Knudsen
Swarm observations of static and Alfvénic Electrodynamics in the Auroral Region
- 11:30 Lozinsky, A., and G. Hussey
ICEBEAR-3D Advanced Target Location and Identification Techniques
- 11:50 Reiter, K., S. Guillon, M. Connors, and B. Jackel
Impulsive Geomagnetic Events in the Auroral Zone
- 12:10 Pandey, K., E. Eyiguler, D. Danskin, G. Hussey, and A. Yau
RRI ellipticity angle investigations

Break

Session II

Johnathan Burchill, Chair

- 13:30 Liu, G. and R. Marchand
Kinetic study of Langmuir probe using theoretical and regression approaches
- 13:50 Shen, Y., D. Knudsen, and J. Burchill
Micro-scale plasma heating in the topside ionosphere: Results from e-POP/Swarm-E
- 14:10 Wilson, K., and J. Burchill
Characterization of Ionosphere-Thermosphere Coupling from the VISIONS-2 Mission
- 14:30 Zuber, S., J. Burchill, and D. Knudsen
Assessing Cusp Core Plasma Heating with Visions-2
- 14:50 Ghaly, F., E. Spanswick, and R. Gillies
Investigating Riometer Capacity for Terrestrial HF Signal Monitoring
- 15:10 Olowookere, A. and R. Marchand
Density-temperature constraint from fixed-bias spherical Langmuir probes

Break

- 19:00 Social via Zoom

Thursday February 18th, 2021

Session I

David Knudsen, Chair

- 10:30 Eric Donovan
Opening Remarks
- 10:40 Donovan, E and the SMILE-UVI Team
SMILE-UVI
- 11:00 Mann, S
The RADIation Impacts on Climate and Atmospheric Loss Satellite (RADICALS) Mission
- 11:20 Sibeck, D.
STORM: Opportunities for Joint Studies
- 11:40 Therese Moretto Jorgensen, on behalf of the Daedalus Science Study Team
Daedalus: a Candidate ESA Earth Explorer Mission for the Exploration of the Lower Thermosphere-Ionosphere
- 12:00 Lynch, K.
ARCS: Auroral Reconstruction CubeSwarm, a Heliophysics mission concept for a MIDEX opportunity

Break

Session II

Andrew Yau, Chair

- 13:30 Shepherd, M., D. Billett, G. Shepherd
SuperDARN, WINDII and WACCM-X neutral and ion winds observed at high latitudes during geomagnetic disturbances
- 13:50 Shepherd, G., and Y.-M. Cho
A New Perspective on Observing Earth's Dayglow
- 14:10 Parry, H., I. Mann, and R Holzworth
On the Role of Lightning in Coupling Geospace and the Neutral Atmosphere Through the Excitation of the Ionospheric Alfvén Resonator
- 14:30 Fraser, D., W. Ward, P. Preusse, C. Strube, S. Kristoffersen, and D. Gamblin
Ray tracing of gravity waves in the northern polar MLT

Thursday February 18th, 2021 (continued)

- 14:50 Ghadjari, H.
Analysis of Co-existence of Ionospheric Irregularities and Alfvénic Structures in the Equatorial Ionosphere
- 15:10 Madhanakumar, M., A. Kashcheyev, and P. Jayachandran
On the Geometrical Dependence of Scintillation Indices
- 15:30 M. Patrick, C. M. Cully, R. M. Millan, A. J. Halford, M. P. McCarthy
Retrieving Electron Precipitation Spectra from x-ray1Measurements using Constrained Tikhonov Regularization

Friday February 19th, 2021

- 10:30 Pierre Langlois
GO-Canada Meeting
- Break**
- 13:30 Emma Spanswick
DASP Business Meeting

Saturday February 20th, 2021

- 10:30 Student Workshop

GO-Canada Meeting Schedule

Start Time	Topic	Presenter
10:30	Welcome	P. Langlois
10:35	ICEBEAR (Ionospheric Continuous wave E-region Bistatic Experimental Auroral Radar) Radar Operations	G. Hussey
10:50	AUTUMN EAST-WEST	M. Connors
11:05	Canadian Array for Real-time Investigations of Magnetic Activity (CARISMA)- Next GENERation autonomous	D. Milling
11:20	Arctic Ionosphere Monitoring Canadian High Arctic Ionospheric Network (CHAIN)	P. Jayachandran
11:35	Canadian Array for Real-time Investigations of Magnetic Activity (CARISMA)	I. Mann
11:50	SuperDARN Canada National Research Facility	K. McWilliams
12:05	TReX-ASI	E. Donovan
12:20	Last thoughts	All

Friday, February 19th, 2021

DASP Business Meeting Schedule

Agenda for Canadian Association of Physicists' Division of Atmospheric and Space Physics (DASP) Business Meeting

19 Feb 2020 @ 11:30 – 1:30 MST

1:30 – 3:30 EST

2:30- 4:30 AST

and via Zoom (connection details to be provided)

Executive: Chair Emma Spanswick (Meeting Chair)
 Vice-Chair David Themens
 Secretary Robyn Fiori (Meeting report)

1.	Approval of the agenda		(1 min)
2.	CAP 2021 program committee meeting	Emma Spanswick	(5 min)
3.	Membership status, financial status, and division fees	Robyn Fiori	(5 min)
4.	Reports by national representatives SCOSTEP COSPAR CAP-NSERC liaison committee International Union for Pure and Applied Physics URSI IAGA/IUGG GEM	William Ward David Themens Andrew Yau John Manuel	(20 min)
5.	DASP representation on the CSA Planetary Exploration Consultative Committee (PECC)	Martin Connors	(15 min)
6.	DASP Student Workshop	Victoria Foss	(10 min)
7a.	Canadian Space Agency Report	John Manuel	(30 min)
7b.	Solar Terrestrial Science Roadmap & Lunar Gateway Priorities		
7c.	Q & A		
8.	DASP 2022 workshop venue	Emma Spanswick	(10 min)
9.	Any other business		
10.	Adjournment		

Student Workshop Schedule

Start Time	Session Name	Speaker Name
10:30	Space Weather in Canada	Dr. L. Nikolic
11:30	Convection in the ionosphere	Dr. K. McWilliams
12:30	Mass transport in the magnetosphere	Dr. E. Donovan
1:30	Lunch/Snack Break	-
2:00	Radiation belts	Dr. I. Mann
3:00	Electron precipitation and atmospheric chemistry	Dr. C. Cully

Saturday, February 20th, 2021