

2013 CEDAR-GEM Workshop Agenda

Flagstaff Section of the Millennium Hotel Ballroom



Saturday 22 June

0825-0830	Introduction	Larry Lyons
Dayside MIT response to transient solar wind, bow shock, and magnetopause phenomena Chairs: Zhang, Sibeck		
0830-0920	Transfer through the magnetosheath and magnetopause associated with transients	
0830-0845	The effects of solar wind transients on the outer and inner magnetosphere	Nick Omidi
0845-0900	Multipoint observations of transient ion foreshock phenomena upstream of Earth's bow shock and their impacts on the magnetosphere-ionosphere-thermosphere system	Drew Turner
0900-0910	Magnetospheric response to solar wind dynamic pressure variations	Andrey A. Samsonov
0910-0920	Physics of Hot Flow Anomalies and their possible ionospheric signatures	Hui Zhang
0920-0955	Impacts on the dayside IT system produced by transient field-aligned currents MIT coupling of transient features along magnetic field lines	
0920-0930	Dayside transients: Their importance and observational campaigns and missions to address them	David Sibeck
0930-0945	Magnetospheric contributions to unusual thermospheric cooling during strong geomagnetic storms	Delores Knipp
0945-0955	Response of the Magnetosphere-Ionosphere-Thermosphere system to solar wind dynamic pressure fronts: Field-aligned currents, Joule heating, and thermospheric effects	Thanasis Boudouridis
Structure and dynamics of polar cap ionospheric convection and plasma Chairs: Hysell, Baker		
0955-1135	Large-scale and mesoscale structure and dynamics of polar cap ionospheric convection	
0955-1010	John Foster: SED plume, cusp, tongue of ionization observations providing truly global viewpoints on these phenomena	
1010-1030	Discussion	
1030-1050	BREAK	
1050-1105	Responses in (i) polar cap convection (PCN - CPCP) and (ii) M - I coupling in the Harang region during intervals of repetitive substorm activity driven by geoeffective ICMEs	Per Even Sandholt/Charlie Farrugia
1105-1120	On Sunward Flow Channel Dynamics in the Magnetosphere and Polar Cap Auroral Arc Structure	Stefan Eriksson
1120-1135	Scintillation related to convection driven polar cap patches versus precipitation-driven auroral irregularities	Anthea Coster
1135-1200	Production and transport of polar ionospheric plasma structures	
1135-1150	Polar flow structures, including relations to patches	Ying Zou
1150-1200	Connections between polar cap flow channels and geomagnetic disturbances	Toshi Nishimura
1200-1235	Polar ion outflow and implications on magnetospheric dynamics	
1200-1215	Characterization of polar ion outflow and implications for modulating magnetospheric dynamics	Alex Glocer
1215-1235	discussion	
1235-1405	LUNCH	
Active MIT coupling on closed magnetic field lines		
1405-1535	Meso-scale nightside auroral-zone disturbances and their relation to larger scale features	Chairs: Semeter, Nishimura
1405-1420	Magnetosphere-Ionosphere Coupling and Auroral Electrodynamics	Bob Lysak
1420-1430	Flow channels associated with auroral streamers and substorm onset	Bea Gallardo
1430-1440	Plasma structures and convective flow in the polar ionosphere	Josh Semeter
1440-1455	Multi-instrument observations of the electrodynamics of the ionospheric trough during substorms	Shasha Zou
1455-1515	Discussion	
1515-1535	BREAK	
1535-1640	MIT coupling within auroral and sub-auroral regions	Chairs: Mannucci, Maruyama
1535-1550	Aurora Dynamics and Applications	Yongliang Zhang

1550-1605	Response of region-2 currents, Harang reversal, and SAPS to changes in the plasma sheet	Chih-Ping Wang
1605-1620	Modeling the response of the ionosphere/plasmasphere system to stormtime forcings	Joe Huba
1620-1630	Magnetic field mapping and the Van Allen Probes	Elizabeth MacDonald
1630-1640	Self-consistent magnetosphere-ionosphere mapping	Chao Yue
1640-1800	Response of the nightside IT system to magnetospheric dynamics	Chairs: Mannucci, Maruyama
1640-1650	Large-scale subauroral ionospheric dynamics seen by mid-latitude SuperDARN radars	Jo Baker
1650-1700	Fine structure in auroral electric fields	Dave Hysell
1700-1710	A New Parameterization of Proton Impact Ionization	Xiaohua Fang
1710-1730	Discussion of last session	
1730-1800	Discussion of day	

Sunday 23 June

2013 CEDAR Student Workshop will run concurrently in the Canyon Section of the Millennium Hotel Ballroom (See 2013 CEDAR Workshop Agenda, Non-students welcome!)

0830-0840	Auroral region interactions	Kristina Lynch
0840-0930	Response at low and equatorial latitudes. e.g., penetration, shielding, dynamo electric fields	Chairs: Mannucci, Maruyama
0840-0850	Ionospheric response to magnetospheric electric fields: moderate to severe storms	Tony Mannucci
0850-0905	Low Latitude storm-time electric fields effects: Outstanding questions	Bela Fejer
0905-0915	Looking at low latitudes - remember the tides	Barbara Emery
0915-0930	discussion of morning portion of session	

Coordinated use of space-based RBSP/THEMIS and ground-based observations to address geomagnetic storm phenomena, including ring current and radiation belt formation, and plasmasphere evolution

Chairs: MacDonald, Erickson

0930-1010	Mechanisms for formation of the ring current, plasmasphere, and radiation belts	
0930-0945	Combining ground and in-situ observations with modelling to understand dynamics of the radiation belts	Yuri Shprits
0945-1000	Global simulations of ring current development	Vania Jordanova
1000-1010	Comparison of RCM-E simulations with multisatellite observations of ring current magnetic field and particle fluxes and during magnetic storms"	Margaret Chen
1010-1025	Flow channel, R2 current coupling links to ring current, plasmasphere and radiation belts	
1010-1025	Flow channel injection into ring current	Matina Gkioulidou
1025-1045	BREAK	
1045-1120	Model predictions, their validity, and why do we care	
1045-1100	Why we care from both science and operational interests	Howard Singer
1100-1110	Mid latitude flywheel: a connection from the inner magnetosphere to lower thermosphere	Naomi Maruyama
1110-1120	GEM-CEDAR community-wide model validation project	Masha Kuznetsova
1120-1155	Thermosphere-ionosphere stormtime phenomena, and relations to other phenomena	
1120-1135	Sub-Auroral Magnetosphere-Ionosphere Coupling in a System Framework: New Insights from Simultaneous In-Situ Ionosphere and Magnetosphere Observations	Phil Erickson
1135-1155	Discussion	

Coordinated model-data studies to support new and innovative CEDAR/GEM science

Chairs: Richmond, Donovan

1155-1220	Parameterizing MIT coupling in geospace models, including assumptions and limitations	
1155-1210	Current Status in Modeling the Fully Coupled Magnetosphere-Ionosphere-Thermosphere System	Aaron Ridley
1210-1220	Open GGCM study of ionosphere and thermosphere energy deposition under northward IMF condition	Wenhui Li
1220-1350	LUNCH	
1350-1420	Contributions of MIT coupling to important features; modeling & observational constraints	
1350-1405	TBD	Mike Ruohoniemi
1405-1420	On auroral boundary determination and validation efforts	Yihua Zheng
1420-1550	Understanding basic magnetospheric high-latitude inputs to the IT system	
1420-1435	Electromagnetic energy and momentum transfer between the magnetosphere and upper atmosphere	Art Richmond
1435-1450	Model validations using DMSP Poynting flux and magnetic mapping	Lutz Raestatter
1450-1505	How to quantify storm impact on the ionosphere and thermosphere	Tim Fuller-Rowell
1505-1520	Modeling the high latitude energy transfer for GCMs	Astrid Maute
1520-1530	Auroral Current and Electrodynamics Structure (ACES) observations of ionospheric feedback in the Alfvén resonator and model responses"	Ian Cohen
1530-1550	Discussion	
1550-1610	BREAK	
1610-1715	Coordination and assimilation of calibrated IT measurements on regional and global scales	
1610-1625	Innovative CEDAR/GEM science for the future using ISRs and auroral imaging	Eric Donovan
1625-1715	Discussion for future	Chair: Lyons