

## **CEDAR IT Poster Session – Wednesday, 29 June 2011**

(51 of 107 posters in competition)

<b>COUP</b>	Coupling of the Upper Atmosphere with Lower Altitudes (2 of 6 posters in competition)
<b>DATA</b>	Data Assimilation (2 of 2 posters in competition)
<b>EQIT</b>	Equatorial Ionosphere or Thermosphere (8 of 19 posters in competition)
<b>IRRI</b>	Irregularities of the Ionosphere or Atmosphere (7 of 10 posters in competition)
<b>ITIT</b>	Instruments or Techniques for Ionospheric or Thermospheric Observation (12 of 28 posters in competition)
<b>LTRV</b>	Long-Term Variations of the Upper Atmosphere (1 of 2 posters in competition)
<b>MDIT</b>	Midlatitude Ionosphere or Thermosphere (5 of 9 posters in competition)
<b>MIC</b>	Magnetosphere-Ionosphere Coupling (4 of 10 posters in competition)
<b>PLNT</b>	Planetary Atmospheres (1 of 2 posters in competition)
<b>POLA</b>	Polar Aeronomy (6 of 11 posters in competition)
<b>SOLA</b>	Solar Terrestrial Interactions in the Upper Atmosphere (3 of 6 posters in competition)
<b>GEM</b>	GEM Posters (0 of 2 posters in competition)

### **Coupling of the Upper Atmosphere with Lower Altitudes**

**COUP-01**, David Andrew Galvan, Non-student, Ionospheric Response to the Japanese Earthquake and Tsunami of March 11, 2011: GPS TEC Observations

**COUP-02**, Vicki Hsu, Student IN poster competition, Midlatitude ion temperature during sudden stratospheric warming events

**COUP-03**, Tzu-Wei Fang, Non-student, Impact of Atmospheric Tides on Ionosphere-Thermosphere System

**COUP-04**, Jia-Ting Lin, Student IN poster competition, Ionospheric Signatures of Stratosphere Sudden Warming Observed by FORMOSAT-3/COSMIC

**COUP-05**, Joe McInerney, Non-student, Using Whole Atmosphere Models to Assess Contributions To Thermospheric Temperature and Winds By Higher Order Migrating Tides

**COUP-06**, Eric Sutton, Non-student, Short-Term Variability of Nonmigrating Tidal Structures in the Thermosphere

### **Data Assimilation**

**DATA-01**, David Hansen, Student IN poster competition, New space weather products for HF radio, GPS navigation, and aviation

**DATA-02**, Juan Federico Conte, Student IN poster competition, Upgrading La Plata Ionospheric Model in the context of the AIRE Project

### **Equatorial Ionosphere or Thermosphere**

**EQIT-01**, Fabiano Rodrigues, Non-student, Coherent backscatter radar imaging study of equatorial spread F over Brazil

**EQIT-02**, Fabiano Rodrigues, Non-student, C/NOFS observations of the effects of SSW events on equatorial vertical

**EQIT-03**, Michael Olson, Student IN poster competition, Equatorial zonal plasma drift effects during sudden stratospheric warming events

**EQIT-04**, Larisa Goncharenko, Non-student, Ionospheric effects of recent stratospheric sudden warmings in the low-latitude ionosphere

**EQIT-05**, Henrique Aveiro, Student IN poster competition, Three-dimensional simulation of equatorial spread F: modeling scheme and results

**EQIT-06**, Timothy Duly, Student IN poster competition, Perkins' instability simulations of MSTID Seeding Equatorial

**EQIT-07**, Narayan Chapagain, Student NOT in poster competition, Ionospheric Plasma Depletion Comparisons from Two Longitudinal Sectors Measured by Airglow

**EQIT-08**, Ehab Hassan, Student IN poster competition, Drift Turbulence from Density-Gradient in the Ionosphere E-Layer

**EQIT-09**, Thomas Gehrels, Student IN poster competition, Recognition of Equatorial Plasma Bubbles and Medium-Scale Traveling Ionospheric Disturbances in Airglow Images

**EQIT-10**, Jonathan Krall, Non-student, Equatorial plasma bubbles triggered by non-equatorial traveling ionospheric disturbances or gravity waves

**EQIT-11**, Brian Tracy, Student IN poster competition, Lunar Tidal effects of the equatorial vertical drifts over Jicamarca

**EQIT-12**, Roger Varney, Student IN poster competition, SAMI2-PE is Another Model of the Ionosphere Including Photoelectron Transport

- EQIT-13**, Angeline Burrell, Student NOT in poster competition, Validation of the 2007 Horizontal Wind Model at Solar Minimum via Equatorial Field-Aligned Ion Drifts
- EQIT-14**, Sasmita Mohapatra, Student NOT in poster competition, Longitudinal and Seasonal variation of ion density, temperature and composition during solar minimum
- EQIT-15**, Esayas Shume, Non-student, Effect of IMF Bz orientation on equatorial electrojet plasma waves
- EQIT-16**, Esayas Shume, Non-student, Effects of convection driven gravity waves on equatorial electrojet plasma waves
- EQIT-17**, Stoyan Ivanov, Student IN poster competition, Analyzing the IAR with IRI During the Recent Solar Minimum
- EQIT-18**, Marc Hairston, Non-student, Stormtime electric field response in the equatorial ionosphere seen from CINDI (C/NOFS) and DMSP data
- EQIT-19**, Anthony Mannucci, Non-student, Factors Controlling Prompt Penetration Electric Fields During Superstorms

### **Irregularities of the Ionosphere or Atmosphere**

- IRRI-01**, Takuya Tsugawa, Non-student, Ionospheric disturbances detected by GPS total electron content observation after the 2011 Tohoku earthquake, presented by Michi Nishioka
- IRRI-02**, Michi Nishioka, Non-student, Study on night-time F-region irregularities using a VHF radar, ionosondes, and ground-based GPS stations in Southeast Asia
- IRRI-03**, Ronald Ilma, Student IN poster competition, Plasma wave irregularities in the equatorial topside E-region
- IRRI-04**, Ting-Han Lin, Student IN poster competition, A Study of the Relation between Mean Doppler Velocity Shear of Es 3-meter field-aligned Irregularities and Neutral Wind Shear by Using Chung-Li VHF Radar
- IRRI-05**, Tae-yong Yang, Student IN poster competition, Occurrence of mid-latitude field-aligned irregularities observed with VHF coherent scatter ionospheric radar in South Korea
- IRRI-06**, Haiyang Fu, Student IN poster competition, Heater Beam Angle Effect on Simulated Brillouin Scatter in Magnetized Ionospheric Plasma
- IRRI-07**, Chien Ya Wang, Non-student, Statistical Investigations of Layer-type and Clump-type Plasma Structures of 3-meter Field-Aligned Irregularities in Nighttime Sporadic E Region Made with Chung-Li VHF Radar
- IRRI-08**, Alireza Mahmoudian, Student IN poster competition, Irregularity Excitation Associated with Ionospheric Dust Cloud Boundary Layers and Dusty space plasma diagnosis using temporal behavior of polar mesospheric summer echoes during active modification
- IRRI-09**, Eliana Nossa, Student IN poster competition, Shear flows in the Mid-latitude E layer
- IRRI-10**, Alireza Samimi, Student IN poster competition, Observations and theory of ion gyro harmonic structures in the Stimulated Electromagnetic Emission (SEE) spectrum excited near second harmonic of electron gyro-frequency

### **Instruments or Techniques for Ionospheric or Thermospheric Observation**

- ITIT-01**, Padmashri, Suresh, Student IN poster competition, Study of ITM region using ISS as a launch platform
- ITIT-02**, Callum Anderson, Non-student, Thermospheric Winds Observed by two All-sky Imaging Fabry-Perot Spectrometers
- ITIT-03**, Carl Andersen, Student IN poster competition, The Ampules Mission: Measurement of Three-Dimensional, Thermospheric Neutral Winds and Gradients with A New Type of Sounding Rocket Payload
- ITIT-04**, John Meriwether, Non-student, Bistatic Observations of Thermospheric Winds and Temperatures in Peru
- ITIT-05**, Martin Grill, Non-student, CESAR First Light, presented by Tom Slanger
- ITIT-06**, Genevieve Plant, Student IN poster competition, A high-speed tomographic imaging system for studying dynamic aurora
- ITIT-07**, Chhavi Goenka, Student IN poster competition, Liquid Crystal Tunable Filters for aeronomy and beyond
- ITIT-08**, Qian Wu, Non-student, Mid-Latitude Thermospheric Wind Observation
- ITIT-09**, Yiyi Huang, Student IN poster competition, Simulations of a Satellite-Based Fabry-Perot Interferometer for Measuring Upper-Atmospheric related Temperatures and Winds
- ITIT-10**, Konstantinos Kalogerakis, Non-student, Lessons from a Lifetime: The Temporal Evolution of O(1D) Emission in Ionospheric Modification
- ITIT-11**, Robert Marshall, Non-student, Continuous Ground-based Multi-wavelength Airglow Measurements using a new Echelle Spectrograph Instrument
- ITIT-12**, Elizabeth Kendal, Non-student, The Sondrestrom Research Facility All-Sky Imagers, presented by Anja Stromme
- ITIT-13**, Mark Butala, Non-student, Analysis of JPL GAIM Ionospheric Specification Results in a Low-Latitude Region
- ITIT-14**, Tim Kelley, Student IN poster competition, Development and Validation of a Technique for Determining the Background Mid-Latitude TEC from CIDR Measurements
- ITIT-15**, I-Te Lee, Student IN poster competition, Data assimilation of FORMOSAT-3/COSMIC using NCAR TIE-GCM
- ITIT-16**, Chi-Yen Lin, Student IN poster competition, A comparison of electric density profiles observed by FORMOSAT-3/COSMIC at 500 km and 800 km altitude

**ITIT-17**, Xiang Ryan, Student IN poster competition, A Comparison of Different Radio Occultation Algorithms for ionospheric electron density retrievals  
**ITIT-18**, Kang-Hung Wu, Student IN poster competition, Global Comparison of NmF2 and hmF2 between COSMIC and Ionosonde  
**ITIT-19**, Ramin Jafari, Student NOT in poster competition, Comparison of different pulse compression techniques in coherent scatter RADAR  
**ITIT-20**, Marcos Inoñán, Student NOT in poster competition, The new Jicamarca acquisition radar system and its first applications to the study of the equatorial ionosphere  
Status of First Author: Student NOT in poster competition Undergraduate  
**ITIT-21**, Ryan Davidson, Student NOT in poster competition, Corrections to velocity, temperature, and density measurements from retarding potential analyzers aboard DMSP and C/NOFS  
**ITIT-22**, Alan Sheng Xi Li, Student NOT in poster competition, QB50: Multi-point, In-situ, Long-Duration Lower Thermosphere Research  
**ITIT-23**, Marcin Pilinski, Student IN poster competition, Model-Density Anomalies in the Lower Atmosphere as Observed by Aerodynamic Drag on Orbiting Rocket Bodies  
**ITIT-24**, Daniel Suarez, Student NOT in poster competition, A GPU-based Monte Carlo algorithm for the simulation of particle trajectories in O+, H+ and He+ plasmas  
**ITIT-25**, Geoff Crowley, Non-student, TID Studies with the TIDDBIT HF Doppler Sounder  
**ITIT-26**, Geoff Crowley, Non-student, Dynamic Ionosphere Cubesat Experiment (DICE)  
Instruments or Techniques for Ionospheric or Thermospheric Observation  
**ITIT-27**, Geoff Crowley, Non-student, CASES: A Novel Low-Cost Ground-based Dual-Frequency GPS Software Receiver and Space Weather Monitor  
**ITIT-28**, Burak Tuysuz, Student IN poster competition, Passive VHF radar design using software defined radio for the equatorial E and F region

### **Long-Term Variations of the Upper Atmosphere**

**LTRV-01**, John Emmert, Non-student, Inter-cycle minima differences in thermospheric mass density and ionospheric total electron content  
**LTRV-02**, Oleksandr Gromenko, Student IN poster competition, Estimation and Testing for Spatially Distributed Curves with Application to Ionospheric and Magnetic Field

### **Midlatitude Ionosphere or Thermosphere**

**MDIT-01**, Santiago Marsal, Student NOT in poster competition, Low-latitude TEC enhancement and associated magnetic signature  
**MDIT-02**, Evan Thomas, Student IN poster competition, Investigation of ionospheric plasma irregularities using GPS receivers and mid-latitude SuperDARN HF  
**MDIT-03**, Sarah Park, Student IN poster competition, The source of the steep plasma density gradient in middle latitudes – A case study of the 11–12 April 2001 storm  
**MDIT-04**, Hanbyul Lee, Student IN poster competition, Comparison between Ionospheric and Plasmaspheric TECs measured from JASON satellite: plasmaspheric flux  
**MDIT-05**, Eojin Kim, Student IN poster competition, An empirical model for the ionospheric parameters (NmF2, hmF2) obtained from Anyang digisonde station  
**MDIT-06**, Carlos Martinis, Non-student, Optical studies of thermosphere/ionosphere processes at low and midlatitudes  
**MDIT-07**, Levan Lomidze, Student IN poster competition, Observations, modeling and causes of the Weddell Sea Anomaly  
**MDIT-08**, Sebastien de Larquier, Student NOT in poster competition, First observations of the mid-latitude evening anomaly using SuperDARN radars  
**MDIT-09**, Edwin Mierkiewicz, Non-student, Geocoronal Balmer-alpha Derived Effective Temperatures near Solar Maximum

### **Magnetosphere-Ionosphere Coupling**

**MIC-01**, Bharat Kunduri, Student IN poster competition, An Examination of Inter-Hemispheric Conjugacy in Sub Auroral Polarization Streams  
**MIC-02**, Antti Pulkkinen, Non-student, Determination of the True Ionospheric Currents and Conductances from Combined Ground- and Space-Based Observations

**MIC-03**, Aron Dodger, Student IN poster competition, Comparison of Ionospheric Electric Field Models Effect on Plasmaspheric Dynamics with IMAGE EUV Data  
**MIC-04**, George Siscoe, Non-student, Possible explanation of the Love-Gannon relationship between Dst and the local-time asymmetry in the low-latitude disturbance field  
**MIC-05**, Tapas Bhattacharya, Student IN poster competition, Role of Ionospheric Physics on the Evolution of Field-aligned Currents  
**MIC-06**, Chris Fallen, Non-student, Diurnal variation of magnetosphere-ionosphere electron heat flux measured with the Poker Flat ISR: seasonal dependence  
**MIC-07**, Robert Redmon, Student NOT in poster competition, A global view of O<sup>+</sup> upward flows and outflow rates between DMSP and POLAR  
**MIC-08**, William Denig, Non-student, Auroral Resources Toolkit (ART), presented by Rob Redmon  
**MIC-09**, Nathaniel Anthony Frissell, Student IN poster competition, Characteristic energies in an auroral spiral  
**MIC-10**, Oliver Brambles, Student NOT in poster competition, Magnetosphere Sawtooth Oscillations Induced by Ionospheric Outflow

### **Planetary Atmospheres**

**PLNT-01**, Dong Chuanfei, Student IN poster competition, A framework for establishing the feedback between the M-GITM and the multi-fluid MHD models  
**PLNT-02**, Jeremy Rioussset, Non-student, Air-density-dependent model for analysis of air heating associated with streamers, leaders, and transient luminous events

### **Polar Aeronomy**

**POLA-01**, Hanna Dahlgren, Student IN poster competition, Energy and flux variations across thin auroral arcs  
**POLA-02**, Joshua Semeter, Non-student, Direct three-dimensional imaging of polar ionospheric structures with the Resolute Bay Incoherent Scatter Radar, presented by Hanna Dahlgren  
**POLA-03**, Brent Sadler, Student IN poster competition, Auroral Precipitation Driven Density Structures in the Cusp  
**POLA-04**, Gareth William Perry, Student IN poster competition, The interconnection between cross-polar cap convection and the luminosity of polar cap patches  
**POLA-05**, Hassanali Akbari, Student IN poster competition, Observation of a non-thermal scattering from a suggested thin layer in the F region of the ionosphere  
**POLA-06**, Barbara Emery, Non-student, A New Auroral Parameterization for the TIEGCM  
**POLA-07**, Yue Deng, Non-student, Significance of difference heating mechanisms to the cusp neutral density enhancement  
**POLA-08**, Grant Scoular, Student IN poster competition, Study of Polar Cap Wave Activity in the ULF Frequency Range Using PolarDARN HF Radars  
**POLA-09**, Mark Conde, Non-student, Wind-driven transport of thermospheric air parcels in the auroral zone  
**POLA-10**, Mark Conde, Non-student, Ground-Based Doppler Mapping of Thermospheric Wind and Temperature Fields with Very High Spatial Resolution  
**POLA-11**, Ellen Cousins, Student IN poster competition, Characteristics of spatial variability in high-latitude plasma drifts

### **Solar Terrestrial Interactions in the Upper Atmosphere**

**SOLA-01**, Xianjing Liu, Student IN poster competition, Thermosphere density response to CIR storm in solar minimum observed by coplanar CHAMP and GRACE satellites  
**SOLA-02**, Mariangel Fedrizzi, Non-student, Physical Modeling of the Thermosphere-Ionosphere Response to Solar and Geomagnetic Forcing  
**SOLA-03**, Susan Nossal, Non-student, Observed and Modeled Solar Cyclic Variation in Geocoronal Hydrogen using NRLMSISE-00 Thermospheric Conditions and the Bishop Analytic Exospheric Model  
**SOLA-04**, Olga Verkhoglyadova, Non-student, Ionospheric Total Electron Content and Thermospheric Infrared Emission Dynamics during High-Speed Stream Intervals in 2008  
**SOLA-05**, Yanshi Huang, Student IN poster competition, Solar EUV irradiance and geomagnetic energy variation during last solar cycle  
**SOLA-06**, Pei-Chen Lai, Student IN poster competition, COSMIC observations of dayside TEC enhancements in response to a moderate disturbance in the solar wind

## **Bowshock**

GEM-BHSK-01, Sunhak Hong, Student NOT in poster competition, Model Comparison Study on the Large Dayside GEO Magnetic Field Compression Events

## **Ring Currents**

GEM-RING-01, Yajnavalkya Bhattacharya, Non-student, Spectral investigation of PC5 oscillations in SWEPAM proton velocities from the ACE spacecraft