

## **CEDAR IT Poster Session – Tuesday, June 25, 2013**

(66 of 110 posters in competition)

<b>DATA</b>	Data Assimilation or Management (3 of 7 posters in competition)
<b>EQIT</b>	Equatorial Ionosphere or Thermosphere (9 of 11 posters in competition)
<b>IRRI</b>	Irregularities of the Ionosphere or Atmosphere (13 of 17 posters in competition)
<b>ITIT</b>	Instruments or Techniques for Ionospheric or Thermospheric Observation (11 of 20 posters in competition)
<b>MDIT</b>	Midlatitude Ionosphere or Thermosphere (10 of 17 posters in competition)
<b>LTVI</b>	Long-Term Variations of the Ionosphere-Thermosphere (2 of 4 posters in competition)
<b>MITC</b>	Magnetosphere-Ionosphere-Thermosphere Coupling (1 of 2 posters in competition)
<b>POLA</b>	Polar Aeronomy (8 of 22 posters in competition)
<b>SOLA</b>	Solar Terrestrial Interactions in the Upper Atmosphere (9 of 10 posters in competition)

### **Data Assimilation or Management**

**DATA-01**, William Edward Archer, Student IN poster competition Comparing quiet time standard deviation to error estimates of incoherent scatter radar measurements

**DATA-02**, I-Te Lee, Student NOT in poster competition Assimilation of FORMOSAT-3/COSMIC electron density profiles into a coupled Thermosphere/Ionosphere model

**DATA-03**, Levan Lomidze, Student IN poster competition Estimation of Thermospheric Winds Using a Kalman Filter Technique

**DATA-04**, Romina Nikoukar, Non-student Preliminary results on a new plasmasphere data assimilation technique

**DATA-05**, Yang-Yi Sun, Student IN poster competition Assimilative Model Bias Correction Schemes for Global Ionospheric Modeling

**DATA-06**, Kornyanat Watthanasangmechai, Student NOT in poster competition Latitudinal GRBR-TEC validated with TEC reconstructed from ionosonde and C/NOFS density data

**DATA-07**, Joeli Wroten, Non-student Boston University All-Sky Imager Data Archives

### **Equatorial Thermosphere or Ionosphere**

**EQIT-01**, Angeline Gail Burrell, Non-student Solar Activity Dependence of Interhemispheric Transport

**EQIT-02**, Daisuke Fukushima, Student IN poster competition Study of gravity waves generated from strong tropospheric convection over Brazil by using multi-point GPS-TEC data

**EQIT-03**, Ehab Hassan, Student IN poster competition Another Fluid Simulation Results for Low-Latitude Irregularities in E-region

**EQIT-04**, Vicki W. Hsu, Student IN poster competition A Mechanism for the Formation of the Equatorial Thermosphere Anomaly

**EQIT-05**, Debrup Hui, Student IN poster competition Quiet-Time Variability of Equatorial Plasma Drifts Near Dusk

**EQIT-06**, Luis Navarro Dominguez, Student IN poster competition Database of upper atmospheric winds and temperatures measured with the network of Fabry-Perot interferometers in Peru

**EQIT-07**, Luis Navarro Dominguez, Student NOT in poster competition On the variability of Low-latitude Thermospheric Winds, Temperatures, and Intensities observed by the Peruvian FPI network

**EQIT-08**, Ramin Jafari, Student IN poster competition Forecasting Ionospheric Storms at the Magnetic Equator

**EQIT-09**, Samuel C. Sanders, Student IN poster competition Evidence for meridional wind gradients near the equatorial geomagnetic equator

**EQIT-10**, Jessica Mae Smith, Student IN poster competition Jicamarca observations of the equatorial topside response to changes in solar flux conditions

**EQIT-11**, Robert Michael Sorbello, Student IN poster competition First steps towards the implementation of a cognitive radar to study plasma instabilities near the Peruvian Andes

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

**IRRI-01**, Hassanali Akbari, Student IN poster competition PFISR observations of thin turbulence layers in F-region auroral ionosphere

**IRRI-02**, Kuan-Ting Chen, Student IN poster competition Climatology of ionospheric Sporadic E Layer : Examination of Wind Shear Theory

**IRRI-03**, Shih-Ping Chen, Student IN poster competition Scintillation Hole Observed by FORMOSAT-3/COSMIC

**IRRI-04**, Pei-Yun Chiu, Student IN poster competition Short-time Scale Ionospheric Oscillations In GPS Satellite Signal Observations

**IRRI-05**, Kshitija Deshpande, Student IN poster competition Sensitivity study of a model of GPS scintillations used to characterize high latitude ionospheric irregularities

**IRRI-06**, Krishna Prasad Gudivada, Student IN poster competition Incoherent Scatter Radar observations of large scale electron density structures in the evening auroral zone

**IRRI-07**, Matthew Alan Henderson, Student IN poster competition Monitoring mid-latitude scintillation and TEC at UT Dallas

**IRRI-08**, Ronald R. Ilma, Student IN poster competition Plasma wave irregularities in the equatorial upper E region at twilight

**IRRI-09**, Yu Jiao, Student IN poster competition High Latitude Ionosphere Scintillation Characterization

**IRRI-10**, Erin H. Lay, Non-student Thunderstorm-induced fluctuations detected in ionospheric plasma

**IRRI-11**, Rafael Luiz Araujo de Mesquita, Student NOT in poster competition A multi-instrument study of the Pre-midnight Brightness Wave and Brightness Wave signatures in the northeastern Brazil nightglow

**IRRI-12**, Robert Miceli, Student IN poster competition A heuristic model of auroral Farley Buneman waves and comparison with PFISR and VHF coherent scatter radar data

**IRRI-13**, Catalin Negrea, Student IN poster competition Wave activity in the Thermosphere-Ionosphere system as determined from Dynasonde data

**IRRI-14**, Pablo M. Reyes, Student IN poster competition 50 MHz radar observations of E-region “sunset layer” and F-region plasma irregularities from Roi-Namur in 03/25 to 04/13, 2013 window in support of EVEX/MOSC NASA campaigns

**IRRI-15**, CANCELLED

**IRRI-16**, Esayas B. Shume, Non-student Phase and coherence of longitudinally separated L-band scintillation

**IRRI-17**, Kai-Jia Tseng, Student IN poster competition Improvement of GPS Radio Occultation Retrieval of Ionospheric E region Electron Density

**IRRI-18**, Chien Ya Wang, Non-student Evaluation the Wind Shear Effect on the Pronounced Summer Maximum Sporadic E Layers

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

**ITIT-01**, Carl Andersen, Student IN poster competition On The Measurement of Neutral Winds and Gradients in the Lower Thermosphere with Multi-Point, Chemical-Release Sounding Rocket Payloads.

**ITIT-02**, Mark G. Conde, Non-student Deriving Thermospheric Wind Fields from Distributed Arrays of Fabry-Perot Spectrometers

**ITIT-03**, John W. Meriwether, Non-student Development of a mapping strategy for equatorial thermospheric winds using data from three Fabry-Perot interferometer observatories located in Central Peru

**ITIT-04**, Ellen D. P. Cousins, Non-student Dominant modes of variability in ionospheric plasma drifts

**ITIT-05**, Juha Vierinen, Non-student Improving Millstone Hill electron density accuracy: Plasma-line profile developments

**ITIT-06**, Daniel J. Fisher, Student IN poster competition Initial analysis of neutral winds and temperatures from the NATION FPIs

**ITIT-07**, Thomas W. Gehrels, Student IN poster competition Dynamic automated control of NATION FPIs

**ITIT-08**, Chhavi Goenka, Student IN poster competition Multispectral Imaging of Aeronomical Features using Tunable Filters

**ITIT-09**, Mike Greffen, Non-student Using Existing AMISR Modules To Create Multiple New ISR Facilities

**ITIT-10**, Guy Alan Grubbs, Student IN poster competition Calibration of EMCCD Imagers for Auroral Physics using Narrowband Filters

**ITIT-11**, Alexander Hackett, Student IN poster competition Development of a Reconfigurable Ionosonde Receiver Using a Software-defined Radio Hardware Platform

**ITIT-12**, Alexander Hackett, Student NOT in poster competition Development of an Advanced Digital Radar Network for Mid-latitude Ionospheric Studies

**ITIT-13**, Brian J. Harding, Student IN poster competition Radar Imaging with Compressed Sensing

**ITIT-14**, Michael Hirsch, Student IN poster competition Sub-5km baseline tomography for fine-scale auroral measurements

**ITIT-15**, Brett Isham, Non-student Designs for an HF Imaging Antenna Array in Aguadilla, Puerto Rico

**ITIT-16**, Tony Mangogna, Student IN poster competition High-Power Resonance Fluorescence Helium LIDAR

**ITIT-17**, Daniel S. Miladinovich, Student IN poster competition Indirect Estimates of High-Resolution Ionospheric-Thermospheric States During Stormtime

**ITIT-18**, Ashton Seth Reimer, Student IN poster competition An initial test of a multi-frequency technique for SuperDARN derived electron density measurement during the PINOT 2012 campaign

**ITIT-19**, Irfan Azeem, Non-student Geospace and Space Weather Monitoring from Unmanned Marine Vehicles

**ITIT-20**, Irfan Azeem, Non-student Midnight Temperature Maximum Observations Over Millstone Hill

### **MidLatitude Ionosphere or Thermosphere**

**MDIT-01**, Jordi Xing, Student IN poster competition Measurement Model of Ionospheric Electron Content with CYGNSS

**MDIT-02**, Geoff Crowley, Non-student Mid and High Latitude Ionospheric Response to Geomagnetic Storms using the DICE CubeSat

**MDIT-03**, Ziwei Chen, Student IN poster competition Modeling GPS TEC variations over North America using Empirical Orthogonal Function

**MDIT-04**, Sebastien de Larquier, Student NOT in poster competition A re-analysis of the role of the Temperature Gradient Drift Instability in mid-latitude quiet-time ionospheric scatter

**MDIT-05**, Nathaniel A. Frissell, Student IN poster competition Geomagnetic Dependence of Medium Scale Traveling Ionospheric Disturbances (MSTIDs) Observed by Mid- and High- Latitude SuperDARN Radars

**MDIT-06**, Federico Gasperini, Student IN poster competition Thermosphere Winds from Champ Neutral and Plasma Density Measurements

**MDIT-07**, Dustin A. Hickey, Student IN poster competition Midnight temperature maximum observations using incoherent scatter radars: climatology and dual site comparisons

**MDIT-08**, Yuta Hozumi, Student NOT in poster competition Longitudinal structures of He II radiation in the upper ionosphere observed from the International Space Station

**MDIT-09**, Alexander Kendrick, Student IN poster competition TEC Perturbations near thunderstorms at Los Alamos GPS Receivers

**MDIT-10**, Bharat Kunduri, Student IN poster competition Statistical characterization of sub-auroral polarization stream using large scale observations by mid-latitude SuperDARN radars

**MDIT-11**, Charles Lin, Non-student Ionospheric Shock Waves Triggered by Rockets

**MDIT-12**, Yen-Chieh Lin, Student IN poster competition Model Simulation of E-Region Electron Density and Sporadic E Layers

**MDIT-13**, Clara Narvaez, Non-student Morphology of Ionospheric Storms during Different Solar Cycles

**MDIT-14**, Zhipeng Ren, Non-student TIME3D-IGGCAS: A New Three-Dimension Theoretical Ionospheric Model in realistic geomagnetic fields

**MDIT-15**, Alvaro J. Ribeiro, Student IN poster competition Sub-auroral ionospheric convection as observed by midlatitude SuperDARN Radars

**MDIT-16**, Pedrina Terra Santos, Non-student The new Remote Optical Facility of Arecibo Observatory in Culebra Island, Puerto Rico

**MDIT-17**, Cheng Wang, Student IN poster competition High Accuracy Ionosphere Total Electron Content Map Based on Sparse Regional GNSS Networks

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

**LTVI-01**, Edvier Cabassa-Miranda, Non-student Long-term trends on the F2 peak parameters over Arecibo based on over four decades of incoherent scatter radar and ionosonde measurements

**LTVI-02**, Timothy M. Duly, Student IN poster competition Climatology of nighttime medium-scale traveling ionospheric disturbances (MSTIDs) at middle and low geomagnetic latitudes in the Central Pacific and the South American sectors

**LTVI-03**, Susan M. Nossal, Non-student Solar Cyclic and Climatic Influences on Upper Atmospheric Hydrogen Distributions

**LTVI-04**, Enrique Rojas Villalba, Student IN poster competition A Long-Term Trend Study of the F-Region Peak Height Above Jicamarca

### **Magnetosphere-Ionosphere-Thermosphere Coupling**

**MITC-01**, Nithin Sivadas, Student IN poster competition FDTD Modelling of Low-frequency Shear-Alfven-wave Propagation and its Interaction with Trapped Charge Particles in the Magnetosphere

**MITC-02**, Nithin Sivadas, Student NOT in poster competition Space-based Proton Electron Detector (SPEED) to Measure Fluctuations in the Energy Spectra of Protons and Electrons in the Upper Ionosphere

### **Polar Aeronomy**

**POLA-01**, Michael Jason Ahrns, Student NOT in poster competition Electron Energy Inversion from Auroral Optical Data

**POLA-02**, Meghan Burleigh, Student IN poster competition Dynamics of High-Latitude Ionospheric Upflow Processes

**POLA-03**, Philip Fernandes, Student NOT in poster competition Ionosphere-Thermosphere Coupling and Response to an Auroral Driver: An Analysis of Ionospheric Thermal Ions Using a SIMION-based Forward Instrument Model

**POLA-04**, Donald L. Hampton, Non-student Filling the void: Plans for a distributed array of ionospheric sensors in Alaska

**POLA-05**, Yishi Lee, Student IN poster competition An Investigation of the Auroral Ionospheric Responses due to Atmospheric and Magnetospheric Forcing

**POLA-06**, Robert Clayton, Student NOT in poster competition Localized Swarm of Low-Resource CubeSat-Class Spacecraft

**POLA-07**, Marcin Palinski, Non-student Magnetic Field Observations from the Dynamic Ionosphere CubeSat Experiment (DICE)

**POLA-08**, Marcin Palinski, Non-student First Results from a Chain of GPS TEC and Scintillation Receivers in Alaska

**POLA-09**, Manbharat Singh Dhadly, Student IN poster competition Distortion in Thermospheric air masses by horizontal neutral winds over Poker-Flat (Alaska) measured using an All-Sky scanning Doppler imager

**POLA-10**, Christopher T. Fallen, Non-student Electron heat flux calculations associated with auroral precipitation events

**POLA-11**, Lindsay Victoria Goodwin, Student IN poster competition High Latitude F-Region Ion Temperature Spikes and their Possible Origin

**POLA-12**, Phil G. Richards, Non-student Pre-midnight, summer electron density depletions observed by the PFISR radar at Poker Flat, Alaska

**POLA-13**, Stephen R. Kaepler, Non-student An Investigation of Auroral Electrodynamics within the Auroral-Ionosphere: Observations and Modeling

**POLA-14**, Delores Knipp, Non-student High Resolution Space-Based Magnetometer Comparisons--DMSP and AMPERE

**POLA-15**, Xianjing Liu, Student IN poster competition Helium in the Recent Solar **Minimum**

**POLA-16**, Gareth William Perry, Student NOT in poster competition Anti-correlated plasma density and ion temperature enhancements adjacent to a sun-aligned arc

**POLA-17**, Gareth William Perry, Student IN poster competition An analysis of successive F-region ionization patches

**POLA-18**, Cheng Sheng, Student IN poster competition Thermospheric winds around the cusp region

**POLA-19**, Jeffrey D. Spaleta, Non-student Highlights of Initial Operation of a New High Latitude SuperDARN Radar at Amundsen-Scott South Pole Station, Antarctica

**POLA-20**, Justin D. Yonker, Student NOT in poster competition Efficiency of Energy Deposition Processes to the Creation and Destruction of Thermospheric Nitric Oxide

**POLA-21**, Shasha Zou, Non-student Multi-instrument Observations of Storm Enhanced Density (SED) during Oct. 24-25 2011 Storm: Implications for SED Formation Processes

**POLA-22**, Ying Zou, Student IN poster competition Polar cap flow channels and association with polar cap arcs, airglow patches and nightside auroral activity

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

**SOLA-01**, Tapas Bhattacharya, Student IN poster competition Role of ionospheric boundary conditions on MI-coupling

**SOLA-02**, Alex T. Chartier, Student IN poster competition Improving Storm-Time Ionospheric Forecasts

**SOLA-03**, Yanhong Chen, Non-student Ionosphere response to CIR-induced recurrent geomagnetic activity during the declining phase of Solar Cycle 23

**SOLA-04**, Bea Gallardo-Lacourt, Student IN poster competition SuperDARN observations of structured flows associated with substorm auroral onset

**SOLA-05**, Chih-Ting Hsu, Student IN poster competition Vertical wavy structures triggered by Geomagnetic Disturbance

**SOLA-06**, Cissi Ying-tsen Lin, Student IN poster competition Classification of the Solar Aspect Monitor (SAM) Observations on Solar Dynamic Observatory's (SDO) Extreme ultraviolet Variability Experiment (EVE)

**SOLA-07**, Ryan M. McGranaghan, Student IN poster competition Signatures of the Russell-McPherron Effect in Thermospheric Density

**SOLA-08**, Jack R. Olsen, Student IN poster competition Impact of Small Scale E-field Variability and Lower Atmospheric Forcing on Thermospheric O/N<sub>2</sub> Column Density Ratios

**SOLA-09**, Padmashri Suresh, Student IN poster competition Thermosphere Temperature Response to Geomagnetic Storms

**SOLA-10**, Jie Zhu, Student IN poster competition Subsolar thermospheric waves excited by the July-14-2000 solar flare