

CEDAR IT Poster Session – Tuesday, June 24, 2014

(57 of 103 posters in competition)

DATA	Data Assimilation or Management (4 of 7 posters in competition)
EQIT	Equatorial Thermosphere or Ionosphere (7 of 15 posters in competition)
IRRI	Irregularities of Ionosphere or Atmosphere (7 of 15 posters in competition)
ITIT	Instruments or Techniques for Ionospheric or Thermospheric Observation (9 of 15 posters in competition)
LTVI	Long Term Variations of the Ionosphere-Thermosphere (1 of 2 posters in competition)
MITC	Magnetosphere-Ionosphere-Thermosphere Coupling (3 of 7 posters in competition)
MDIT	MidLatitude Thermosphere or Ionosphere (8 of 12 posters in competition)
POLA	Polar Aeronomy (12 of 23 posters in competition)
SOLA	Solar Terrestrial Interactions in the Upper Atmosphere (6 of 7 posters in competition)

Data Assimilation or Management

- DATA-01** Gary Steven Bust, Non-student, presented by high school student Kaleb Slaatthuag, A Data Assimilative Comparison of Solar Cycle 24 Magnetic Storms
- DATA-02** Brian J. Harding, Student IN poster competition Data fusion from a network of Fabry-Perot interferometers: Estimation of regional thermospheric wind dynamics
- DATA-03** Hsu, Chih Ting, Student IN poster competition Effects of estimating unobserved thermosphere-ionosphere states by data assimilation of FORMOSAT-3/COSMIC data on global ionospheric forecasting
- DATA-04** Lin, Chi-Yen, Student IN poster competition Ionospheric Assimilation of Radio Occultation and Ground-based GPS data using Non-stationary Background Model Error Covariance
- DATA-05** Nikoukar, Romina, Non-student Specification of the plasmasphere using a new data assimilation approach
- DATA-06** Pawlowski, Dave, Non-student Using Ensemble Simultaions to Assess Uncertainty in the Upper Atmosphere
- DATA-07** Sun, Yang-Yi, Student IN poster competition Assimilative Neutral Wind Bias Correction Scheme for Global Ionospheric Modeling at Midlatitude

Equatorial Thermosphere or Ionosphere

- EQIT-01** Espinoza, Juan C., Student NOT in poster competition LISN network: TEC observations over South America
- EQIT-02** Hairston, Marc, Non-student The equatorial ionosphere's response to the October 2012 geomagnetic storms
- EQIT-03** Hassan, Ehab, Student IN poster competition Equatorial Electrojet Irregularities- New Fluid Approach and Simulation
- EQIT-04** Hickey, Dustin A., Student IN poster competition Boston University All-Sky Imager at the Jicamarca Radio Observatory
- EQIT-05** Hong, Junseok, Student IN poster competition Equinoctial asymmetry of transition heights in topside ionospheric profiles

- EQIT-06** Kiene, Andrew Devon, Student IN poster competition Westward neutral winds in the postsunset equatorial Thermosphere
- EQIT-07** Hsu, Vicki, Student IN poster competition Altitude Structure of the Equatorial Thermosphere Anomaly
- EQIT-08** MacInnis, Rebecca, Student IN poster competition Zonal drifts from all-sky imaging observations and CINDI data: magnetically conjugate behavior and latitudinal shear
- EQIT-09** Valladares, Cesar Enrique, Non-student The Tropical Ionization Anomaly
- EQIT-10** Moro, Juliano, Student NOT in poster competition Equatorial Electric Fields in the Brazilian and Peruvian Sectors
- EQIT-11** Pacheco, Edgardo, Non-student Observations of low-latitude irregularities during low and moderate solar activity
- EQIT-12** Rodrigues, Fabiano, Non-student MELISSA: A new coherent backscatter radar interferometer for the Brazilian sector
- EQIT-13** Smith, Jessica Mae, Student IN poster competition On the magnitude of equatorial pre-reversal enhancement of the ionospheric zonal electric field and equatorial topside irregularities
- EQIT-14** Sorbello, Robert Michael, Student NOT in poster competition First steps towards the implementation of a cognitive radar to study plasma instabilities near the Peruvian Andes
- EQIT-15** Suarez Munoz, Daniel, Student NOT in poster competition Signal Chain Software for Jicamarca Radar

Irregularities of Ionosphere or Atmosphere

- IRRI-01** Chen, Shih-Ping, Student IN poster competition Occultation Scintillation Observed by FORMOSAT-3/COSMIC in 2007-2014
- IRRI-02** Cosgrove, Russell Bonner, Non-student Alfvén waves in the ionosphere: cutoff altitude and feedback instability
- IRRI-03** Crowley, Geoff, Non-student Acoustic Waves Detected in the F-region Ionosphere by the TIDDBIT HF TID Mapping System
- IRRI-04** Crowley, Geoff, Non-student TID Observations at Middle and Low Latitudes Using the TIDDBIT HF TID Mapper
- IRRI-05** Crowley, Geoff, Non-student OSSE Experiments to Determine the Value of Various Observing Systems for Ionosphere-Thermosphere Specification
- IRRI-06** Deshpande, Kshitija Bharat, Student IN poster competition Inverse modeling using a novel GPS scintillation model, SIGMA, to characterize high latitude irregularities
- IRRI-07** Eltrass, Ahmed Said Hassan, Student IN poster competition Identification of the generation source of decameter-scale ionospheric irregularities on plasmopause field lines
- IRRI-08** Lamarche, Leslie Jean, Student IN poster competition A statistical investigation of decameter-scale plasma waves in the polar F region

- IRRI-09** Lin, Fei-Fan, Student IN poster competition Observations of three dimensional spatial plasma structures of F region 3-m field-aligned irregularities made with Chung-Li VHF radar
- IRRI-10** Van der Meeren, Christer, Student IN poster competition GNSS scintillations in the night side polar ionosphere over Svalbard
- IRRI-11** Wang, Chien-Ya, Non-student Characteristics of 3-m field-aligned irregularities in daytime and nighttime sporadic E region made with Chung-Li VHF radar
- IRRI-12** Yokoyama, Tatsuhiko, Non-student Three-dimensional high-resolution plasma bubble modeling
- IRRI-13** Zewdie, Gebreab Kidanu, Student IN poster competition Applying the Fourier, Capon and Maximum Entropy Imaging Techniques to Sao Luis Coherent Radar Interferometer Measurements
- IRRI-14** Isham, Brett, Non-student Nonthermal plasma modes in the terrestrial ionosphere
- IRRI-15** Drob, Douglas Patrick, Non-student Understanding the Response of the Ionosphere to Atmospheric Waves Generated by Tsunamis and Other Geophysical Disturbances

Instrs or Techniques for Ionos or Thermos Obs

- ITIT-01** Andersen, Carl, Student IN poster competition Measurement of Neutral Winds and Gradients in the Lower Thermosphere with Multi-Point, Chemical-Release Sounding Rocket Payloads
- ITIT-02** Dhadly, Manbharat Singh, Student IN poster competition First ever cross-comparison of thermospheric neutral wind measured by narrow and wide field optical Doppler spectroscopy
- ITIT-03** Fernandes, Philip, Student IN poster competition Possible measurements of low-altitude ion conics from the MICA sounding rocket
- ITIT-04** Gardner, Derek, Student NOT in poster competition First Balmer- α Airglow Temperature Observations using Field-Widened Spatial Heterodyne Spectroscopy
- ITIT-05** Geddes, George R., Student NOT in poster competition Ionospheric Inversion Using OII 83.4 nm Observations
- ITIT-06** Goenka, Chhavi, Student IN poster competition Versatile four channel tunable hyperspectral imager for remote sensing
- ITIT-07** Hew, Monica, Student IN poster competition Optical Characterization Methods for Assessing Threat of Spacecraft Electrical Anomaly due to Hypervelocity Impact Plasma
- ITIT-08** Kuyeng Ruiz, Karim M., Student NOT in poster competition Preliminary results of the PSU All-sky Radar Interferometry System (PARIS)
- ITIT-09** Mangogna, Tony, Student IN poster competition Newly Revised Helium Resonance Fluorescence LiDAR
- ITIT-10** Pyle, Michelle Lynn, Student IN poster competition Design for Miniaturized Time-of-Flight Reflectron Mass Spectrometer for Upper Atmosphere Density Measurements
- ITIT-11** Reimer, Ashton Seth, Student IN poster competition Estimation of Self-Clutter for HF Ionospheric Radars that Employ the Multi-pulse Technique

- ITIT-12** Reimer, Ashton Seth, Student NOT in poster competition Determination of an Optimal Pulse-Repetition Time for SuperDARN radars
- ITIT-13** Sun, Weiwei, Student NOT in poster competition High speed multi-antenna radar receiver
- ITIT-14** Swoboda, John P., Student IN poster competition Plasma Motion Induced Artifacts in 3-D Incoherent Scatter Radar
- ITIT-15** Tatton, Nicole, Student NOT in poster competition The Optical Profiling of the Atmospheric Limb (OPAL) CubeSat Experiment

Long Term Variations of the Ionosphere-Thermosphere

- LTVI-01** Hawkins, Jessica, Student IN poster competition Solar Zenith Angle as a Driver of Seasonal Oscillations in the Ionosphere
- LTVI-02** Nossal, Susan Marcelle , Non-student Thermospheric hydrogen response to increases in greenhouse gases

Magnetosphere-Ionosphere-Thermosphere Coupling

- MITC-01** Anderson, Brian J., Non-student Relationships between Birkeland current onset dynamics and IMF/solar wind forcing
- MITC-02** Akbari, Hassanali, Student IN poster competition Aspect-angle dependence study of naturally enhanced ion-acoustic lines
- MITC-03** Cameron, Taylor, Student IN poster competition Electron Energy Dispersion as seen by the ePOP Suprathermal Electron Imager
- MITC-04** Connor, Hyunju, Non-student Initial results of storm-time IT responses using the OpenGGCM-CTIM global magnetosphere-ionosphere-thermosphere model
- MITC-05** Li, Zan, Student NOT in poster competition Investigation of EMIC Wave Scattering as the Cause for the BARREL January 17, 2013 Relativistic Electron Precipitation Event
- MITC-06** Sousa, Austin Patrick, Student IN poster competition A Cubesat Instrumentation Suite for In-Situ Measurements of Wave-Induced Particle Precipitation
- MITC-07** Mauk, Barry, Non Student Van Allen Probes Overview and New Resources available via the Mission Gateway

MidLatitude Thermosphere or Ionosphere

- MDIT-01** Duly, Timothy, Student IN poster competition Self-consistent generation of medium-scale traveling ionospheric disturbances (MSTIDs) within the SAMI3 numerical model
- MDIT-02** Duly, Timothy, Student NOT in poster competition pyglow: Upper atmosphere climatological models in Python
- MDIT-03** Frissell, Nathaniel Anthony, Student IN poster competition Sources and Characteristics of Medium Scale Traveling Ionospheric Disturbances Observed by a Longitudinally Distributed Chain of SuperDARN Radars Across the United States
- MDIT-04** Lin, Yen-Chieh, Student NOT in poster competition Model simulation of electron density profile in lower part of ionosphere

- MDIT-05** Lomidze, Levan, Student IN poster competition Magnetic meridional winds in the thermosphere derived from GAIM and their sensitivity to atmospheric model parameters
- MDIT-06** Mabie, Justin J.E., Student IN poster competition High Altitude Acoustic Wave Generated by Launch of the Cygnus ORB-1 Mission to the ISS
- MDIT-07** Perez Ramirez, Freddy M, Student NOT in poster competition MatLab Implementation for Ionosphere Modeling Using B-Spline, VTEC and IRI2012 Models
- MDIT-08** Sullivan, Catherine, Student IN poster competition Magnetically Conjugate Observations of Ionospheric Processes Using All-Sky Imagers in the American Sector
- MDIT-09** Zhu, Jie, Student IN poster competition Simulating electron and ion temperatures in Global Ionosphere Thermosphere Model
- MDIT-10** Chien, Shih Han, Student IN poster competition Observations of semidiurnal tidal variability at seasonal and day-to-day time scales from the Boulder Fabry-Perot Interferometer
- MDIT-11** Mesquita, Rafael, Student IN poster competition A study of the correlation between the midnight temperature maximum signature and the total electron content in the mid-eastern continental United States
- MDIT-12** Mesquita, Rafael, Student NOT in poster competition A multi-instrument study of the vertical plasma drift difference associated with the pre-midnight brightness wave signature over the north-eastern Brazilian region

Polar Aeronomy

- POLA-01** Archer, William, Student IN poster competition Ion Thermalization at 500 km
- POLA-02** Burleigh, Meghan, Student IN poster competition Coupling of Low Altitude Ionospheric Upflow Processes to Ion Outflow
- POLA-03** Clayton, Robert, Student NOT in poster competition Localized Ionospheric Cubeswarm Concept
- POLA-04** Emery, Barbara, Non-student Sondrestrom Joule Heating Estimates
- POLA-05** Fallen, Christopher Thomas, Non-student Simulations of the high-latitude ionosphere response to the 25 Feb 2014 X4.9-class solar flare
- POLA-06** Forsythe, Victoriya V., Student IN poster competition Observations of the high-velocity echoes from the polar E region with new Antarctic SuperDARN radars
- POLA-07** Gallardo Lacourt, Beatriz, Student IN poster competition Ionospheric flow structures associated with auroral beading at the substorm auroral onset
- POLA-08** Goodwin, Lindsay Victoria, Student IN poster competition Negative AL index excursions and their influence on the high latitude F-region ion temperature at dusk
- POLA-09** Hirsch, Michael, Student IN poster competition Reconstruction of Fine Scale Auroral Dynamics
- POLA-10** Hurd, Lucas David, Student IN poster competition Joule heating effects of small-scale structure and neutral winds in the high-latitude thermosphere/ionosphere

- POLA-11** Jee, Geonhwa, Non-student Fabry-Perot Interferometer Installed at Korean Jang Bogo Station (JBS), Antarctica
- POLA-12** Kaeppler, Stephen R., Non-student Observations in the E-region ionosphere of kappa distribution functions associated with precipitating auroral electrons and discrete aurorae
- POLA-13** Liu, Xianjing, Non-student Thermosphere dynamics and composition changes
- POLA-14** Sheng, Cheng, Student IN poster competition Correlation between Poynting flux and soft electron precipitation around the cusp region
- POLA-15** Patrick, Matthew Ryan, Student IN poster competition Time Evolution of Poynting Flux as Observed with the Swarm Satellites.
- POLA-16** Perry, Gareth W., Student IN poster competition Spatiotemporally resolved plasma and electric field structuring associated with a sun-aligned arc over Resolute Bay
- POLA-17** Shim, Ja Soon, Non-student Systematic assessment of the Ionosphere/Thermosphere models driven by different high latitude drivers
- POLA-18** Slanger, Tom, Non-student The Compact Echelle Spectrograph for Aeronomic Research (CESAR)
- POLA-19** Spaleta, Jeffrey D., Non-student Index of Refraction Measurements in the Polar Cap Using the McMurdo Radar
- POLA-20** Wang, Boyi, Student IN poster competition Coordinated observations of polar cap flow channels by all-sky imagers and DMSP
- POLA-21** Zou, Ying, Student NOT in poster competition Localized polar cap flow enhancement evolution and tracing using airglow patches
- POLA-22** Liuzzo, Lucas, Student IN poster competition High-latitude ionospheric drivers and their effects on wind patterns in the thermosphere
- POLA-23** Liuzzo, Lucas, Student NOT in poster competition A statistical comparison of coupled thermosphere-ionosphere models Polar Aeronomy

Solar Terr Interactions in the Upper Atmosphere

- SOLA-01** Kalafatoglu Eyiguler, Emine Ceren, Student IN poster competition Quantitative Assessment of the Ionosphere-Thermosphere Model Performances for the Orbit Averaged Storm Time Neutral Density along the CHAMP Satellite Track
- SOLA-02** Kim, Jeongheon, Student IN poster competition A quantitative analysis of solar X class flare effects on ionosonde and GPS TEC data
- SOLA-03** Lin, Ying-tsen, Student IN poster competition Modeling Nitric Oxide in the Lower Thermosphere with measured Solar Soft X-ray Irradiance
- SOLA-04** McGranaghan, Ryan M., Student IN poster competition Forecasting the Impact of Equinoctial High-Speed Stream Structures on Thermospheric Responses
- SOLA-05** Reistad, Jone Peter, Student IN poster competition Hemispheric asymmetries in the global aurora and IMF Bx
- SOLA-06** Venkataramani, Karthik, Student IN poster competition Radiative cooling of the Thermosphere by infrared emissions from Nitric Oxide

SOLA-07 Yonker, Justin David, Non-student Amplification of NO Production Rate in the Lower Thermosphere due to Catalysis of O₂⁺