CEDAR IT Poster Session – Tuesday, June 26, 2012

(50 of 95 posters in competition)

COUP	Coupling of the Upper Atmosphere with Lower Altitudes (3 of 4 posters in competition)
DATA	Data Assimilation (1 of 2 posters in competition)
EQIT	Equatorial Ionosphere or Thermosphere (8 of 14 posters in competition)
IRRI	Irregularities of the Ionosphere or Atmosphere (7 of 16 posters in competition)
ITIT	Instruments or Techniques for Ionospheric or Thermospheric Observation
	(10 of 20 posters in competition)
LTRV	Long-Term Variations of the Upper Atmosphere (0 of 3 posters in competition)
MDIT	Midlatitude Ionosphere or Thermosphere (10 of 11 posters in competition)
POLA	Polar Aeronomy (8 of 18 posters in competition)
SOLA	Solar Terrestrial Interactions in the Upper Atmosphere (3 of 7 posters in competition)

Coupling of the Upper Atmosphere with Lower Altitudes

COUP-01, Chao-Yen Chen, Student IN poster competition, Seismo-Traveling Ionospheric Disturbances Triggered by the 2011 Tohoku Earthquake Observed by FORMOSAT-3/COSMIC

COUP-02, Yosuke Yamazaki, Non-student, Response of the Ionospheric Current System to Stratospheric Sudden Warmings

COUP-03, McArthur Jones, Student IN poster competition, Non-Migrating Tides in the Thermosphere: Insitu Versus Tropospheric Sources

COUP-04, Kristi N. Warner, Student IN poster competition, Latent tidal heating variability due to the El Niño—Southern Oscillation

Data Assimilation

DATA-01, Sumanta Sarkhel, Non-student, Penn State Airglow Imagers at Arecibo Observatory: Operation and Image Analyses

DATA-02, Robert Sorbello, Student IN poster competition, An Overview of a Cognitive Radar System to Study Plasma Irregularities near the Peruvian Andes

Equatorial Ionosphere or Thermosphere

EQIT-01, Daisuke Fukushima, Student IN poster competition, Geomagnetic conjugate observations of plasma bubbles and thermospheric neutral winds at equatorial latitudes

EQIT-02, Henrique Carlotto Aveiro, Student IN poster competition, 3-D numerical simulations of equatorial spread F: results and diagnostics in the Peruvian sector

EQIT-03, Carlos Martinis, Non-student, Conjugate observations of ionospheric processes in the American sector

EQIT-04, Daniel J Fisher, Student IN poster competition, Comparison of HWM and MSIS and FPI data from Brazil

- **EQIT-05,** Dhvanit Mehta, Student NOT in poster competition, 24-Hr Thermospheric Winds Measured During the 2011 CORRER Campaigns: Correlation of the pre-reversal enhancement with daytime thermospheric winds
- **EQIT-06,** Marc Hairston, Non-student, Vertical and Meridional Ion Flows Observed by C/NOFS During the 26 September 2011 Storm
- **EQIT-07,** Andrew Kiene, Student IN poster competition, Inertial instability analysis of the F-region equatorial neutral zonal jet
- **EQIT-08,** Brian D. Tracy, Student IN poster competition, Zonal Plasma Drifts During Extremely Low Solar Flux
- **EQIT-09,** Woo Kyoung Lee, Non-student, Solar zenith angle effect on the longitudinal plasma distribution in the low-latitude F region
- **EQIT-10,** Roger Hale Varney, Student IN poster competition, Sources of Variability in Equatorial Topside and Plasmaspheric Temperatures
- **EQIT-11,** Wu Kang-Hung, Student IN poster competition, Evaluation of Abel inversion error in the different season
- **EQIT-12**, Ryan Davidson, Non-student, Thermospheric Responses to Geomagnetic Storms
- **EQIT-13,** Paul Zablowski, Student IN poster competition, Inter-hemispheric and longitudinal studies of ionospheric perturbations from all-sky imagers in the American sector
- **EQIT-14,** Esayas B Shume, Non-student, Spectral analysis of scintillation measurements at equatorial latitudes

<u>Irregularities of the Ionosphere or Atmosphere</u>

- **IRRI-01**, Esayas B Shume, Non-student, Day-time F region echoes observed by the Sao Luis radar
- **IRRI-02,** Haiyang Fu, Student IN poster competition, Modeling of Plasma Irregularities associated with Artificially Created Dusty Plasmas in the Near-Earth Space Environment
- **IRRI-03,** Alireza Samimi, Student IN poster competition, Experimental and analytical considerations of the threshold power for the generation of ion gyro-harmonic structures during radio wave heating near the second electron gyro-harmonic
- **IRRI-04**, Chad A. Madsen, Student IN poster competition, The Farley-Buneman Instability: A Comparison Between the Ionosphere and Solar Chromosphere
- **IRRI-05,** Horton Wendell, Non-student, Transitions in Ionospheric Turbulence from Farley-Buneman to Drift Gradient Regimes
- **IRRI-06,** Eugene Dao, Student IN poster competition, Electromagnetic characteristics of equatorial plasma irregularities
- **IRRI-07** Kshitija Deshpande, Student IN poster competition, A forward propagation model of GPS scintillations to investigate high latitude ionospheric irregularities
- **IRRI-08,** Hyomin Kim, Student NOT in poster competition, Ionospheric Irregularities at Substorm Onset: Observations of ULF Pulsations and GPS Scintillations
- **IRRI-09,** Pablo M. Reyes, Student NOT in poster competition, Small period pulsations in the 150-km irregularities

- **IRRI-10,** Accel Abarca, Non-student, Fluid-Kinetic simulation study of the evolution of a penetrating electron beam measured at the top of the ionosphere and its effect on the ISR
- **IRRI-11,** Alvaro John Ribeiro, Student IN poster competition, A survey of plasma irregularities as seen by the mid-latitude Blackstone SuperDARN radar
- **IRRI-12**, Sebastien de Larquier, Student NOT in poster competition, Characterization of quiet-time midlatitude ionospheric backscatter observed by SuperDARN radars
- **IRRI-13,** Ting-han Lin, Student NOT in poster competition, The relation between neutral wind shear and mechanism of the FAIs
- **IRRI-14,** Kate Despain, Non-student, Finite Larmor Radius Effects on Ionosphere Interchange Instabilities
- **IRRI-15,** Alireza Mahmoudian, Student NOT in poster competition, Excitation Threshold of Stimulated Electromagnetic Emissions SEEs Generated at Pump Frequencies Near the third Electron Gyroharmonic
- **IRRI-16,** Hassanali Akbari, Student IN poster competition, Anomalous ISR scatters from the auroral plasma

<u>Instruments or Techniques for Ionospheric or Thermospheric Observation</u>

- **ITIT-01,** Amanda Mills, Student IN poster competition, High Dynamic Range for the Arecibo Observatory's 430 MHz Receiver
- **ITIT-02,** Austin Sousa, Student NOT in poster competition, Mission Objectives of the VLF Wave / Particle Precipitation Mapper (VPM) CubeSat
- **ITIT-03**, Michael J Nicolls, Non-student, observations of the ionospheric E region morphology and variabilityGlobal
- **ITIT-04,** Fabiano S Rodrigues, Non-student, Interferometric coherent backscatter radar observations of F-region irregularities in the Brazilian sector
- **ITIT-05,** I-Te Lee, Student IN poster competition, Assimilation of FORMOSAT-3/COSMIC electron density profiles into a coupled Thermosphere/Ionosphere model using ensemble Kalman filtering
- **ITIT-06,** Ricardo Farino Alonso, Student NOT in poster competition, Voice and data communication system based on Software-Defined Radio technology to establish VHF radio links via Equatorial Electrojet
- **ITIT-07,** Thomas W Gehrels, Student IN poster competition, A two-dimensional minimum mean-square error approach to Fabry-Perot interferometer analysis
- **ITIT-08,** Michael Hirsch, Student IN poster competition, Extended duration high-speed auroral tomography system
- **ITIT-09,** Irfan Azeem, Non-student, Ionospheric Scintillation Monitoring Using GPS based Space Weather Monitor
- **ITIT-10,** Carl Andersen, Student IN poster competition, Ampules: A New Type of Sounding Rocket Payload for the Measurement of Three- Dimensional, Neutral Winds and Gradients in the Lower Thermosphere
- **ITIT-11,** Ewan S Douglas, Student NOT in poster competition, Further Comparison of RAIDS observations to radar-fed model of OII 83.4 nm emission
- ITIT-12, Tony Mangognia, Student IN poster competition, Helium Resonance Fluorescence LIDAR

- ITIT-13, Geoff Crowley, Non-student, Dynamic Ionosphere Cubesat Explorer (DICE): Early Science Instrument Results
- **ITIT-14,** Chi-Yen Lin, Student IN poster competition, The effects of 3D error covariance and background model bias for an ionospheric data assimilation model
- **ITIT-15,** Percy Jesus Condor Patilongo, Student NOT in poster competition, Estimation of Vertical Drifts using Magnetometer Data with Neural Network
- ITIT-16, Liyuan Mei, Student IN poster competition, Extended SAMI2 Model in a Double Adiabatic form
- **ITIT-17,** Marco Antonio Milla, Non-student, The effects of Coulomb collisions on H+, He+, and O+ plasmas for incoherent scatter radar applications at Jicamarca
- **ITIT-18,** Ramin Jafari, Student IN poster competition, Comparison of Time Domain and Frequency Domain Analysis to Estimate Velocity Profile of Field-Aligned Plasma Irregularities
- **ITIT-19,** Juan Miguel Urco, Student NOT in poster competition, Particle Image Velocimetry (PIV) measurements of the vector velocity of equatorial spread F irregularities over Jicamarca
- **ITIT-20,** Alexander Hackett, Student IN poster competition, A 50-MHz Digital Radar System for Ionospheric Studies

Long-Term Variations of the Upper Atmosphere

- **LTRV-01,** Loren Chang, Non-student, Inter- and Intra-Annual Variability of Tidal Components Observed in FORMOSAT-3/COSMIC TECs, 2007-2011
- **LTRV-02,** Ingrid Cnossen, Non-student, The effects of changes in the Earth's magnetic field on the magnetosphere, ionosphere and thermosphere
- LTRV-03, Susan M. Nossal, Non-student, Investigation of Solar Cyclic and Climatic Trends in Upper Atmospheric Hydrogen Distributions

Midlatitude Ionosphere or Thermosphere

- **MDIT-01,** Jonathon Nooner, Student IN poster competition, GPS TEC measurements at Clemson, SC, during Solar Minimum
- **MDIT-02,** Yang-Yi Sun, Student IN poster competition, Ground-based GPS Observation of SED-associated Irregularities Over CONUS
- **MDIT-03,** Aron Dodger, Student IN poster competition, Comparing A Simulated Plasmasphere Using Different Driving Electric Field Models With IMAGE EUV Data
- **MDIT-04,** Yen-Chieh Lin, Student IN poster competition, Model Simulation Of E Region Electron Density and Sporadic E Layers
- **MDIT-05,** Dustin Hickey, Student IN poster competition, Inter-hemispheric and latitudinal comparisons of MTM characteristics
- **MDIT-06,** Jia-Ting Lin, Student IN poster competition, Atmospheric and ionospheric waves disturbed from the rocket source detected by a Taiwanese GPS array
- **MDIT-07,** Timothy M Duly, Student IN poster competition, Investigation of the parallel transport scheme in SAMI2

- **MDIT-08,** Levan Lomidze, Student IN poster competition, Modeling of the Weddell Sea Anomaly: Effects of thermospheric wind
- **MDIT-09,** Fu-Yuan Chang, Student IN poster competition, Neutral wind effect on mid-latitude summer nighttime anomaly
- **MDIT-10,** Samuel Sanders, Student IN poster competition, Simultaneous Fabry-Pérot interferometer observations of thermospheric winds and dynamics at the Pisgah Astronomical Research Institute and at the Millstone Hill Optical Observatory
- **MDIT-11,** Eliana Nossa, Student NOT in poster competition, Analytical solution of the neutral dynamic stability problem to characterize irregularities at midlatitude sporadic E layers

Polar Aeronomy

- **POLA-01,** Robert Miceli, Student IN poster competition, Comparison of in situ and ground-based measurements during the MICA sounding rocket flight
- **POLA-02,** Tapas Bhattacharya, Student IN poster competition, Role of Ionospheric Boundary Conditions on the Evolution of Field-aligned Currents
- **POLA-03,** Qian Wu, Non-student, Millstone Hill and Palmer Station Fabry-Perot interferometer observations
- POLA-04, Qian Wu, Non-student, First Daytime Thermospheric Wind observation by HIWIND
- **POLA-05,** Stanley Gene Edwin, Student IN poster competition, Simulating magnetosphere-ionosphere coupling in the TIEGCM
- **POLA-06,** Hanna Dahlgren, Non-student, Field-aligned motion and morphology of fine scale breakup arcs
- **POLA-07,** Ellen D. P. Cousins, Student IN poster competition, An empirical model of large- and small-scale electric fields in Earth's high-latitude ionosphere
- **POLA-08,** Russell Cosgrove, Non-student, Empirical models of Poynting flux and kinetic energy flux constructed from FAST data
- **POLA-09,** Russell Cosgrove, Non-student, A new branch of the ionospheric feedback instability: Importance to E region physics
- **POLA-10,** Russell Cosgrove, Non-student, Correlation as a global measure of geomagnetic activity: Phase boundaries and a precedent line of nodes
- **POLA-11,** Rasoul Kabirzadeh, Student IN poster competition, CHAMP Estimates of Fluctuating Small-Scale Field-Aligned Currents and Their Relation to Flickering Aurora
- **POLA-12,** Steven Watchorn, Non-student, A Proposed Spatial Heterodyne Spectrometer for Measurement of the Proton Aurora at High Latitude
- **POLA-13,** Yanshi Huang, Student IN poster competition, Altitudinal distribution of Joule heating and its influence on the thermosphere
- **POLA-14,** Xianjing Liu, Student NOT poster competition, Altitude and latitude variation of Thermosphere Mass Density Response to Geomagnetic Activity in Composition Transition Regions
- **POLA-15,** Callum Anderson, Non-student, Vertical Winds in the Southern Auroral Thermosphere Observed Concurrently at E- and F-region Altitudes

- **POLA-16,** Gareth William Perry, Student IN poster competition, Coincidental measurements of an Fregion plasma patch, with optical, incoherent and coherent scatter radar instruments
- POLA-17, Victor Pasko, Non-student, Infrasonic waves generated by supersonic auroral arcs
- **POLA-18,** Evan Thomas, Student IN poster competition, Direct observations of the role of convection electric fields in the formation of a polar tongue of ionization from storm enhanced density

Solar Terrestrial Interactions in the Upper Atmosphere

- **SOLA-01,** Mariangel Fedrizzi, Non-student, Improving CTIPe neutral density response and recovery during large geomagnetic storms
- **SOLA-02,** Catalin Negrea, Student IN poster competition, On the Validation effort of the Coupled Thermosphere Ionosphere Plasmasphere electrodynamics Model
- **SOLA-03,** Frederick Wilder, Non-student, Intense dayside Joule heating during the 5 April 2010 geomagnetic storm recovery phase observed by AMIE and AMPERE
- **SOLA-04,** Jie Zhu, Student IN poster competition, The Thermosphere and Ionosphere Reactions to the 15 February 2011 Solar Flare
- **SOLA-05,** Ja Soon Shim, Non-student, Ionosphere/Thermosphere Model Assessment during the 2006 AGU Storm: TEC, NmF2 and hmF2
- **SOLA-06,** Barbara Emery, Non-student, Climatology Assessment of Ionosphere/Thermosphere Models in Low Solar Flux Conditions for the CCMC CEDAR Challenge
- **SOLA-07,** Cheng Sheng, Student IN poster competition, Height-Integrated Pedersen Conductivity of Ionosphere from COSMIC Observations