CEDAR - MLT Poster Session – Wednesday, June 27, 2012

(40 of 65 posters in competition)

- **ITMA** Instruments and Techniques for the Middle Atmosphere (3 of 6 posters in competition)
- METR Meteor Science other than Wind Observations (8 of 10 posters in competition)
- MLTG Mesosphere and Lower Thermosphere Gravity Waves (7 of 16 posters in competition)
- MLTL Mesosphere and Lower Thermosphere Lidar Studies (7 of 8 posters in competition)
- MLTS Mesosphere or Lower Thermosphere General Studies (4 of 8 posters in competition)
- **MLTT** Mesosphere and Lower Thermosphere Other Tidal or Planetary Waves (3 of 7 posters in competition)
- **SPRT** Sprites (4 of 7 posters in competition)
- **STRB** Stratosphere Studies and Below (3 of 3 posters in competition)

Instruments and Techniques for the Middle Atmosphere

ITMA-01, Andrew John Kavanagh, Non-student, British Antarctic Survey access to the Middle Atmosphere

ITMA-02, Mahmoudian Alireza, Student IN poster competition, New-Measurement Techniques to Diagnose Charged Dust Clouds in the Near-Earth Space Environment Using Ground-Based Ionospheric Heating Facilities

ITMA-03, Mark G. Conde, Non-student, Scanning Doppler Imager Observations of Two Dimensional Wind and Temperature Fields at Mesopause Heights

ITMA-04, Cody Vaudrin, Student NOT in poster competition, A Hardware Description of the Colorado Software Defined Radar

ITMA-05, Cody Vaudrin, Student IN poster competition, A Multistatic Common-volume Meteor Wind Radar Measurement Technique

ITMA-06, Stephen Hall, Student IN poster competition, Estimation of Atmospheric Gravity Wave Parameters from Airglow Imagery

Meteor Science other than Wind Observations

METR-01, Alex Fletcher, Student IN poster competition, Simulations of Meteoroid Impact Generated Plasmas

METR-02, Nicolas Lee, Student IN poster competition, Theory and experiments characterizing meteoroid impact plasma dynamics

METR-03, Vicki Hsu, Student IN poster competition, First Detection of Meteoric Smoke using the Poker Flat Incoherent Scatter Radar

METR-04, Jonathan Yee, Student IN poster competition, Diffusion of Non-Specular Trails as Measured by ALTAIR

METR-05, Ryan Volz, Student IN poster competition, Radar Waveform Inversion Using Range-Frequency Sparsity

METR-06, Rafael Mesquita, Student NOT in poster competition, Statistical Analysis on the Meteor Echoes of CARIRI (7.6° S)

METR-07, Qian Zhu, Student IN poster competition, Modeling Radar Holography as Applied to Point Targets

METR-08, Zachary Stephens, Student IN poster competition, Automated Classification of Meteor Reflections

METR-09, Austin Sousa, Student NOT in poster competition, Naturally-occurring Low-frequency Radio Emissions during Meteor Showers

METR-10, Steven Pifko, Student IN poster competition, Modeling the Meteoroid Input Function at Mid-Latitude Using Meteor Observations By the MU Radar

Mesosphere and Lower Thermosphere Gravity Waves

MLTG-01, Laura Angelina Holt, Student IN poster competition, Transport of NOx created by energetic particle precipitation in WACCM

MLTG-02, Xian Lu, Non-student, Diurnal variation of gravity wave momentum flux and its forcing on the diurnal tide

MLTG-03, Manja Placke, Student IN poster competition, Investigation of gravity wave momentum fluxes from MF Doppler radar and meteor radar measurements in the polar mesosphere

MLTG-04, Sharon Vadas, Non-student, Gravity wave ray trace and full wave model: Approximations, assumptions, results, and comparison with observations

MLTG-05, Christopher Heale, Student IN poster competition, Thermospheric Dissipation and Reflection of Upward Propagating Gravity Wave Packets

MLTG-06, Geoff Crowley, Non-student, TID Observations at Middle and Low Latitudes Using the TIDDBIT HF TID Mapper

MLTG-07, Ryan Agner, Student NOT in poster competition, On the Variation of Gravity Wave Activity through the Solar Cycle at the South Pole

MLTG-08, Erin H Lay, Non-student, High temporal and spatial-resolution detection of atmospheric gravity wave effects on D-layer electron density

MLTG-09, Neal R. Criddle, Student IN poster competition, Investigating mountain waves in MTM airglow data at Cerro Pachon

MLTG-10, Michael Negale, Student IN poster competition, Short period gravity waves in the Arctic atmosphere over Alaska

MLTG-11, Zhenhua Li, Non-student, Gravity waves observed by Michelson Interferometer at Sondre Stromfjord, Greenland

MLTG-12, Xuguang Cai, Student IN poster competition, Mesospheric bore study based on USU sodium lidar and Mesospheric Temperature Mapper (MTM) observations in summer 2011

MLTG-13, Tony Mangognia, Student NOT in poster competition, 4-Channel Photometer for Gravity Wave Detection and Analysis

MLTG-14, Robert Andrew Marshall, Non-student, Subionospheric VLF Remote Sensing of Gravity Waves and Acoustic Waves in the Lower Ionosphere

MLTG-15, Cao Chen, Student IN poster competition, Inertia-gravity waves in Antarctica: A case study with simultaneous lidar and radar measurements at McMurdo (77.8° S, 166.7° E)

MLTG-16, Toru Takahashi, Student IN poster competition, Study on upward propagating atmospheric gravity wave in the polar MLT region using Tromsoe sodium LIDAR

Mesosphere and Lower Thermosphere Lidar Studies

MLTL-01, Zachary Butterfield, Student IN poster competition, Studying the Upper Atmosphere Using a Sodium LIDAR

MLTL-02, Katrina Bossert, Student IN poster competition, Initial Diurnal Sodium Density Observations Over ALOMAR

MLTL-03, Cameron Martus, Student IN poster competition, Sodium and iron resonance lidar observations over Poker Flat Research Range, Chatnika, Alaska (65° N, 147° W)

MLTL-04, Zhibin Yu, Student IN poster competition, Diurnal variations of meteoric Fe layers in the mesosphere and lower thermosphere at McMurdo (77.8S, 166.7E), Antarctica

MLTL-05, Wentao Huang, Non-student, Seasonal variations of the mesospheric Fe layer at McMurdo, Antarctica (77.8°S, 166.7°E)

MLTL-06, Weichun Fong, Student IN poster competition, Winter Temperature Structures and Variations (30-120 km) at McMurdo Station (77.8°S, 166.7°E)

MLTL-07, John Westerhoff, Student IN poster competition, Using Power in Rayleigh Lidar for Middle and Upper Atmospheric Studies

MLTL-08, Leda Sox, Student IN poster competition, Upgraded ALO Rayleigh Lidar System and Its Improved Gravity Wave Measurements

Mesosphere or Lower Thermosphere General Studies

MLTS-01, Justin D. Yonker, Student IN poster competition, Towards a More Accurate Determination of the N(2D) Yield from the Neutral Dissociation of N2

MLTS-02, Deepali Vimal Saran, Non-student, Aeronomical and Spectroscopic Studies of Iron Oxide Emission

MLTS-03, Cissi Ying-tsen Lin, Student IN poster competition, The Variations of Nitric Oxide in the Lower Thermosphere Observed by the Remote Atmospheric & Ionospheric Detection System (RAIDS) in Year 2010

MLTS-04, Richard L Collins, Non-student, Turbulence and Wave-Instability in the Arctic Middle Atmosphere

MLTS-05, Richard L. Collins, Non-student, The Wave-Driven Circulation and Variability of the Arctic Atmosphere

MLTS-06, Brenden Roberts, Student IN poster competition, Structure function analysis of chemical release trails in the mesosphere-lower thermosphere region

MLTS-07, Nate C.M. Bartlett, Non-student, Laboratory studies of FeO and NiO chemiluminescence

MLTS-08, Michael F. Mitchell, Student IN poster competition, Spread-spectrum VLF remote sensing of ionospheric disturbances

Mesosphere and Lower Thermosphere Other Tidal or Planetary Waves

MLTT-01, Nicholas Pedatella, Non-student, Simulations of solar and lunar tidal variability in the mesosphere and lower thermosphere during sudden stratosphere warmings and their influence on the low-latitude ionosphere

MLTT-02, Katelynn Greer, Student IN poster competition, Synoptic-Scale Disturbances of the Wintertime Polar Upper Stratosphere and Lower Mesosphere: A Summary of Observed Characteristics & Potential Vorticity Analysis

MLTT-03, Chiao-Yao She, Non-student, Counter-intuitive, global dynamical phenomena in the MLT: A qualitative explanation

MLTT-04, Vivien Matthias, Student IN poster competition, Sudden Stratospheric Warming – A composite picture using radar and satellite observations

MLTT-05, Qian Wu, Non-student, TIEGCM with TIDI lower boundary

MLTT-06, Vu Nguyen, Student IN poster competition, Estimating the Day-to-Day Variability of the Migrating Diurnal Tide Through Satellite Observations

MLTT-07, Fabrizio Sassi, Non-student, WACCMX nudged by High-Altitude Data Assimilation Products: Early Results During The Northern Hemisphere Winter of 2009

Sprites

SPRT-01, Caitano L. da Silva, Student IN poster competition, Simulation of leader speeds at gigantic jet altitudes

SPRT-02, Ningyu Liu, Non-student, Recovery of the lower ionosphere from modifications by negative halos

SPRT-03, Burcu Kosar, Student IN poster competition, Investigation of the density requirement for ionospheric patches for sprite streamer formation at sub-breakdown conditions

SPRT-04, Robert Moore, Non-student, The dependence of elves on lightning return stroke speed

SPRT-05, Jianqi Qin, Student IN poster competition, Dependence of Positive and Negative Sprite Morphology on Lightning Characteristics and Upper Atmospheric Ambient Conditions

SPRT-06, Xuan-Min Shao, Non-student, Observations of electron density changes in ionospheric D-layer above tropospheric thunderstorms

SPRT-07, Samaneh Sadighi, Student IN poster competition, Streamer Discharges from Dielectric Hydrometeors

Stratosphere Studies and Below

STRB-01, Sotirios A. Mallios, Student IN poster competition, Production of very high potential in intracloud lightning in connection with terrestrial gamma ray flashes

STRB-02, Anthony Teti, Student IN poster competition, A spatially scanning lower and middle atmospheric lidar system in northwest New Jersey

STRB-03, Wei Xu, Student IN poster competition, Source Altitudes of Terrestrial Gamma-Ray Flashes Produced by Stepping Lightning Leaders