

CEDAR - MLT Poster Session – Tuesday, June 23, 2015

(51 of 80 posters in competition)

COUP	Coupling of the Upper Atmosphere with Lower Altitudes (4 of 10 posters in competition)
ITMA	Instruments or Techniques for Middle Atmosphere Observations (7 of 7 posters in competition)
LTVM	Long-Term Variations of the Mesosphere and Lower Thermosphere (0 of 2 posters in competition)
METR	Meteor Science other than Wind Observations (9 of 12 posters in competition)
MLTG	Mesosphere and Lower Thermosphere Gravity Waves (11 of 15 posters in competition)
DATM	Data Management (0 of 1 posters in competition)
MLTL	Mesosphere and Lower Thermosphere Lidar Studies (4 of 7 posters in competition)
MLTS	Mesosphere or Lower Thermosphere General Studies (4 of 7 posters in competition)
MLTT	Mesosphere and Lower Thermosphere Other Tidal, Planetary Waves, or Sudden Stratospheric Warnings (9 of 15 posters in competition)
SPRT	Sprites (2 of 3 posters in competition)
STRA	Stratosphere Studies and Below (1 of 1 posters in competition)

Coupling of the Upper Atmosphere with Lower Altitudes

- COUP-01**, Richard Eastes, Non-student Global-scale Observations of the Limb and Disk (GOLD) Mission – Observing Forcing of the Thermosphere-Ionosphere System from Above and Below
- COUP-02**, Federico Gasperini, Student IN poster competition Wave Coupling between the Lower and Middle Thermosphere as viewed from TIMED and GOCE
- COUP-03**, Rosmarie J. de Wit, Non-student Quantifying the influence of the stratosphere on the mesosphere and lower thermosphere
- COUP-04**, Matthew Grawe, Student IN poster competition Prediction and Analysis of Tsunami-Ionospheric Coupling Efficiency at Large Spatial Scales
- COUP-05**, Cissi Lin, Non-student Implementation of Spectral Gravity Wavefield to the Global Ionosphere Thermosphere Model (GITM)
- COUP-06**, Greg Lucas, Student IN poster competition Magnetospheric Coupling to the Global Electric Circuit
- COUP-07**, Joe McInerney, Non-student WACCM-X: Recent Improvements, Current Development, and Future Plans
- COUP-08**, Justin Mabie, Student NOT in poster competition Observation of rocket induced acoustic waves in the Ionosphere
- COUP-09**, Marcin Pilinski, Non-student Seasonal Variability in Global Eddy Diffusion and the Effect on Thermospheric Neutral Density
- COUP-10**, Jack Chieh Wang, Student IN poster competition Tidal Variability Due to the Quasi-biennial Oscillation and Ionospheric Responses

Instruments or Techniques for Middle Atmosphere Observations

- ITMA-01**, Stephen Andrew Hall, Student IN poster competition Multi-Beam, High-Power Rayleigh Lidar for Study of the Dynamics of the Middle and Upper Atmosphere
- ITMA-02**, Marcos Jose Inonan, Student IN poster competition Measuring Ion Spectra in the D-region using Arecibo Incoherent Scatter Radar
- ITMA-03**, Jintai Li, Student IN poster competition Mesospheric turbulence detection and characterization with AMISR-class radars: Retrieval method and case studies using PFISR
- ITMA-04**, Eliana Nossa, Student IN poster competition ISR Wind Measurements for the Mesosphere and Lower Thermosphere Region - New Techniques and Observations
- ITMA-05**, Peter Panka, Student IN poster competition Study of vibrational-vibrational (V-V) energy exchange between CO₂ isotopes in the middle and upper atmospheres of Earth and Mars
- ITMA-06**, Cody Vaudrin, Student IN poster competition Multistatic Meteor Wind Radar and Results from a Recent Observation Campaign of the Geminids Meteor Shower in Adelaide, Australia.
- ITMA-07**, Stuart Johnson, Student IN poster competition Low-cost Airglow Imager: Integrating CEDAR Science Into the Undergraduate Research and Course Curriculum

Long Term Variations of the Mesosphere and Lower Thermosphere

- LTVM-01**, Jeong-Han Kim, Non-student 27-day oscillation in the mesopause temperature observed by VHF meteor radar at King Sejong Station (62.2S, 58.8W), Antarctica
- LTVM-02**, Quan Gan, Non-student Temperature responses to the 11-year solar cycle in the mesosphere and lower thermosphere from the 31-year (1979-2010) extended Canadian Middle Atmosphere Model simulation

Meteor Science other than Wind Observations

- METR-01**, W.F.J. Evans, Non-student Dayglow from Atomic Nickel
- METR-02**, Boyi Gao, Student IN poster competition High-Altitude Radar Meteors Observed at Jicamarca Radio Observatory using Multi-Baseline Interferometric Technique
- METR-03**, Robert Anthony Haaser, Non-student Understanding the atmospheric and Ionospheric response to hypersonic objects in the Earth's atmosphere
- METR-04**, Ashish Goel, Student IN poster competition Measurements of Hypervelocity Impact Plasma Using a Plasma Spectrometer
- METR-05**, Yayu Monica Hew, Student IN poster competition Time-resolved Emission Characteristics of Hypervelocity Impact Generated Flash
- METR-06**, Daniel Kellett, Student IN poster competition Accurate Detection of Micro-Meteor Observations by the Arecibo 430 MHz Incoherent Scatter Radar

- METR-07**, Lorenzo Limonta, Student IN poster competition Multi-instrument detection of meteoroids and ablation characterization
- METR-08**, Liane Kathryn Tarnecki, Student IN poster competition Spectra of Full 3-D PIC Simulation of Evolving Meteor Trails
- METR-09**, Qian Zhu, Student IN poster competition High spatial and temporal resolution radar measurements of meteor fragmentation at the Jicamarca Radio Observatory
- METR-10**, Ana Maria Tarano, Student IN poster competition Characterization of Non-Specular Meteors Detected by a Non-Equatorial Radar
- METR-11**, Alex Fletcher, Student IN poster competition Weibel instability in meteoroid impact-produced plasmas
- METR-12**, Benjamin Thomas Spangler, Student NOT in poster competition A Comparison of Optical and Radar Meteoroid Mass Estimates Using Simultaneous Observations

MLT Gravity Waves

- MLTG-01**, Erin H Lay, Non-student Ionospheric acoustic and gravity waves associated with mid-latitude thunderstorms
- MLTG-02**, Ryan Matthew Agner, Student IN poster competition Local Gravity Wave Effects on the DW1 Tidal Variability In WACCM/eCMAM
- MLTG-03**, Christopher Heale, Non-student The relative importance of temperature and wind medium scale wave perturbation fields in refracting small-scale gravity waves.
- MLTG-04**, Bing Cao, Student IN poster competition Observational and Modeling Study of Gravity Wave Propagation Through Reflection and Critical Layers
- MLTG-05**, Yun Zhang, Non-student The study of gravity wave components with different vertical scales in the stratosphere based on SABER temperature data
- MLTG-06**, Hosik Kam, Student IN poster competition Observation of mesospheric gravity waves with an All-Sky Camera in King Sejong Station, Antarctica (62° 13'S, 58° 47'W)
- MLTG-07**, Dhvanit Mehta, Student IN poster competition Gravity Wave Sources over South Pole
- MLTG-08**, Michael R. Negale, Student IN poster competition Investigating Thermospheric Gravity Wave Amplitudes in the High Arctic
- MLTG-09**, Jonathan Pugmire, Student IN poster competition Satellite measurements of mesospheric gravity wave temperature variances over the Andes
- MLTG-10**, Ahmad Talaei, Student IN poster competition Horizontal phase speed distribution of gravity waves observed in mesospheric temperature maps
- MLTG-11**, Colin Charles Triplett, Student IN poster competition Gravity wave activity over Chatanika, Alaska and its relationship to the wind field and geostrophic adjustment.
- MLTG-12**, Chris William Vail, Student IN poster competition Gravity Wave Parameter Distribution over multiple seasons using an All Sky Imager in Eureka, Nunavut, Canada
- MLTG-13**, Haoyu Li, Student IN poster competition Statistical Study of High to Medium Frequency Mesoscale Gravity Waves over the Central US using Temperature Mapper, CRRL Na Lidars, and ECMWF

MLTG-14, Johnathon S. Gay, Student IN poster competition Undergraduate High Impact Learning Through Ray Tracing of Atmospheric Gravity Waves

MLTG-15, Luis Navarro Dominguez, Student NOT in poster competition Detection and estimation of Gravity Wave parameters from the Jicamarca All-Sky Imager

Data Management

DATM-01, Luis Navarro Dominguez, Student NOT in poster competition Online Monitoring System for Lidar Operations and Data Handling at ALO-USU

MLT Lidar Studies

MLTL-01, Vincent B. Wickwar, Non-student The transition from summer-to-winter temperatures between 70 and ~115 km as observed with the ALO-USU Rayleigh lidar

MLTL-02, Ian Barry, Student IN poster competition Stratospheric and MLT Temperature and Horizontal Wind Vector Collection Using Na-DEMOF Receivers

MLTL-03, Katrina Bossert, Student IN poster competition Instabilities, Critical Layers, and Secondary Gravity Wave Generation in the Mesosphere and Lower Thermosphere During the DEEPWAVE Campaign

MLTL-04, Cao Chen, Student IN poster competition A statistical study of the 4-9 h waves in the Antarctic middle and upper atmosphere observed by lidar

MLTL-05, Yafang Guo, Student IN poster competition Sodium observation in the lower thermosphere (120-160 km) at the Andes Lidar Observatory

MLTL-06, Leda Sox, Student NOT in poster competition Changing Atmospheric Composition and the Retrieval of Rayleigh Lidar Temperatures in the Lower Thermosphere

MLTL-07, Wentao Huang, Non-student Design and implement a new Na Faraday filter for STAR Na Doppler lidar at Boulder to make high-quality daytime measurements

Mesosphere or Lower Thermosphere General Studies

MLTS-01, Erin Dawkins, Non-student CO₂ in the MLT: constraining the CO₂(v₂)-O quenching rate coefficient.

MLTS-02, Xuguang Cai, Student IN poster competition Investigation on how the strong Sporadic Na layer formed by model simulation

MLTS-03, Takanori Nishiyama, Non-student Height and time characteristics of seasonal and diurnal variations in PMWE based on 1 year observations by the PANSY radar (69.0°S, 39.6°E)

MLTS-04, Yi Chung Chiu, Student IN poster competition The Equatorial OH Airglow Analysis by ISUAL Instrument on Board the FORMOSAT 2 Satellite

MLTS-05, Neal R. Criddle, Student IN poster competition Coordinated temperature measurements in Logan, UT, USA

MLTS-06, Cornelius Csar Jude Salinas, Student IN poster competition Seasonal Variations of TIMED/SABER Carbon Dioxide based Eddy Diffusion Coefficients in the MLT Region

MLTS-07, Julio Alberto Oscanoa, Student NOT in poster competition Mesospheric winds estimation algorithms for Jicamarca All-Sky Meteor radars

MLT Other Tidal, Planetary Waves, or Sudden Stratospheric Warmings

MLTT-01, Quan Gan, Non-student Observations of thermosphere and ionosphere changes due to the dissipative 6.5-day wave in the lower thermosphere

MLTT-02, Weichun Fong, Student IN poster competition First climatology of temperature structure from 0 to 110 km during 2011-2014 and mechanism study of winter temperature tides of fast amplitude growth above 100 km at McMurdo (77.8S, 166.7E), Antarctica

MLTT-03, Loren Chang, Non-student Seasonal and quasi-biennial variations in ionospheric tidal signatures using HHT analysis

MLTT-04, Jia-Ting Lin, Student IN poster competition A Study of thermospheric-ionospheric response to the 2009 stratospheric sudden warming by using an assimilative TIME-GCM with SAMI3 model simulations

MLTT-05, Xian Lu, Non-student Lidar and satellite studies of the vertical coupling of eastward propagating planetary waves with periods of 1–5 days from the stratosphere to the lower thermosphere in the winter Antarctic

MLTT-06, Garima Malhotra, Student IN poster competition Interhemispheric Comparison of Seasonal Mesospheric Tidal Activity observed by mid-latitude SuperDARN Radars

MLTT-07, You Yu, Non-student Seasonal variations of MLT tides revealed by a meteor radar chain based on HMD analysis

MLTT-08, Vu Nguyen, Student IN poster competition Observations of Secondary Waves Arising from QTDW-DW1 Interaction

MLTT-09, Mary Beth Bradley, Non-student Stationary planetary waves and their momentum budgets in eCMAM30

MLTT-10, Nirmal Nischal, Student IN poster competition Photochemical modeling of nonmigrating tides in the 15 μm infrared cooling of the lower thermosphere and comparison with SABER

MLTT-11, Ashan Vitharana, Student IN poster competition Statistical characteristics of short-term variability of diurnal tides in eCMAM30

MLTT-12, David Warder, Student IN poster competition Seasonal variations of Hough modes in DW1 and DS0

MLTT-13, Shengyang Gu, Student NOT in poster competition Influence of the sudden stratosphere warming on quasi-2 day waves

MLTT-14, Austin Gornet, Student IN poster competition Examination of sudden stratospheric warming effects of non-migrating diurnal tides

MLTT-15, Brittany A. Marriott, Student IN poster competition Neutral Temperature and Horizontal Wind in the Thermosphere

Sprites

SPRT-01, Levi Boggs, Student IN poster competition Analysis of two thunderstorms producing three negative sprites on 12 September 2014

SPRT-02, Mohammad Ahmad Salem, Student IN poster competition Effects of Thunderstorm Electrostatic Fields on the Conductivity of the Lower Ionosphere

SPRT-03, Salih Mehmed Bostan, Student NOT in poster competition Preliminary Results of a Software Defined Radar System to Detect Sprites

Stratosphere Studies and Below

STRA-01, David K. Moser, Student IN poster competition Comparing USU Rayleigh Lidar and Assimilative Model Temperatures at 45 km