

## CEDAR POSTERS BY DAY, TRACK

The day 1=Tuesday, 2=Wednesday, 3=Thursday indicates when the authors will present their poster

Posters in competition (graduate)
Posters in competition (undergraduate)
Graduate no competition
Graduate no competition

Day	Track	Title	Last Name	First Name
<b>DAY 1 - Tuesday, June 22</b>				
1	MDIT	Observing Large Scale Traveling Ionospheric Disturbances using HamSCI Amateur Radio: Climatology with Connections to Geospace and Neutral Atmospheric Sources.	Sanchez	Diego
1	MDIT	Enabling Statistical Analysis of the Main Ionospheric Trough with Computer Vision	Starr	Gregory
1	MDIT	Tidal Signature in Sporadic E Occurrence Rate, Using GAIA Model and FORMOSAT-3/COSMIC Radio Occultation Data	Sobhkhiz-Miandehi	Sahar
1	MDIT	The effects of solar flare-driven ionospheric electron density change on Doppler Flash	Chakraborty	Shibaji
1	MDIT	HF Doppler Observations of Traveling Ionospheric Disturbances in a WWV Signal Received with a Network of Low-Cost HamSCI Personal Space Weather Stations	Romanek	Veronica

1	<b>MDIT</b>	Boulder TINA Layers (100–150 km) Detected by High-Sensitivity Na Lidar and Their Relationship to Tidal Winds and TIDs	Chen	Yingfei
1	<b>MDIT</b>	Wave signatures in thermospheric zonal winds obtained from satellite observations	Molina	Ivana
1	<b>MDIT</b>	On the role of E-F region coupling in the generation of nighttime MSTIDs during summer and equinox: Case studies over northern Germany	Mani	Sivakandan
1	<b>METR</b>	Meteoroid Orbit Determination from HPLA Radar Data	Blanchard	Jared
1	<b>METR</b>	High-Resolution Electrostatic Simulation of Plasma Formation Around a Small Ablating Meteoroid	Hedges	Trevor
1	<b>MITC</b>	A Statistical Study on the Inner Magnetospheric Signatures of Subauroral Ion Drift (SAID) and Subauroral Polarization Streams (SAPS)	Hussein	Abdelaziz
1	<b>MITC</b>	Reconstructing Sequence of events, timing, and hemispheric asymmetries associated with isolated substorms	Waghule	Bhagyashree
1	<b>MITC</b>	The Influence of Whistler Mode Chorus Waves on Diffuse Electron Aurora and Ionospheric Conductance.	Gillespie	Dillon
1	<b>MITC</b>	A multiresolution data assimilation model for high latitude electrodynamics	Wu	Haonan

1	MITC	Investigating Ionosphere-Thermosphere Coupling in the Nightside Auroral Oval	Davidson	Katherine
1	MITC	Observing Thermospheric Variability Through Loss Cone Analysis	Davis	Lance
1	MITC	Quantifying the radiation belt response to lightning via ground-based VLF and Van Allen Probe data	Pailoor	Nikhil
1	MITC	Modeling of auroral scintillations produced by energetic particle precipitation using plasma based and forward propagation models	Vaggu	Pralay Raj
1	MITC	Impact of Inter-hemispheric Asymmetries of Field-Aligned Current on the Ionosphere-Thermosphere System: GITM-3Dynamo Simulations	Hong	Yu
1	MITC	Polar cap plasma transport during geomagnetic storms	Pokhotelov	Dimitry
1	MITC	FAST TEAMS in situ measurements of plasma convection	Lund	Eric
1	MITC	Antarctic SuperDARN Observations of Medium Traveling Ionospheric Disturbances	Tholley	Francis
1	MITC	Observation of ionospheric plasma density variations in conjunction with standing Alfvén waves	Akbari	Hassan
1	MITC	FAC Contributions from Hall Conductance Gradients in Non-Sheet-Like Auroral Arcs	van Irsel	Jules
1	MITC	Solar flare effects in the Earth's magnetosphere	Liu	Jing
1	MITC	Validation of SSUSI derived auroral ionization rates and electron densities	Bender	Stefan

1	<b>MITC</b>	Impact of Meso-scale Electrodynamics on Ionospheric and Thermospheric Energy Budget	Meng	Xing
1	<b>MITC</b>	Altitudinal responses of the high latitude E region neutral wind to substorm events	Zhan	Weijia
1	<b>MLTG</b>	Statistical Characterization of Persistent Gravity Waves in the Mesosphere and Lower Thermosphere at McMurdo, Antarctica With an Improved 2D Wavelet-Based Automatic Wave Recognition and Extraction Methodology	Geraghty	Ian
1	<b>MLTG</b>	Effects of Molecular Damping on Gravity Waves	Wang	Tao
1	<b>MLTG</b>	Combining Na Lidar Observations and High-resolution Modeling for Turbulences over Andes Lidar Observatory	Dong	Wenjun
1	<b>MLTG</b>	A new method for extracting GW parameters from Na lidar data	Criddle	Neal
1	<b>MLTG</b>	A Two-dimensional Numerical Model for comparative study of Gravity Waves on different Planets	Srivastava	Sarthak
1	<b>MLTL</b>	The Application of New Methods for Removing Photon-Noise Bias in Second-Order Parameters Derived from Lidar Measurements of Atmospheric Waves	Jandreau	Jackson
1	<b>MLTS</b>	Exploring the Effects of Geomagnetic Storms in the Ionosphere Using Principal Component Analysis	Goel	Divyam
1	<b>MLTS</b>	Modelling Variations in the D-region Ionosphere via Machine Learning based Remote Sensing	Richardson	David
1	<b>MLTS</b>	Interaction of Gravity Waves, Planetary Waves, and Tides in the Arctic Stratosphere and Mesosphere in Winter 2018-2019 and Winter 2019-2020	Das	Satyaki
1	<b>MLTS</b>	Comparing Nitric Oxide Treatments in Community Circulation Models	Medema	Alexander

1	MLTS	Two-dimensional horizontal correlation functions in the MLT region estimated using multistatic specular meteor radar observations during the SIMONe 2018 campaign	Poblet	Facundo
1	PLAN	Observations of atmospheric tides in the middle and upper atmosphere of Mars from MRO and MAVEN	Kumar	Aishwarya
<b>DAY 2 - Wednesday, June 23</b>				
2	COUP	Lightning detection in radio spectrograms based on convolutional neural networks	Kundrat	Adrian
2	COUP	Observing Non-Migrating Diurnal Tides from Geostationary Orbit with GOLD	Krier	Christopher
2	COUP	Numerical study to uncover the driving mechanisms of the migrating diurnal tide day-to-day variability	Wang	Jack
2	COUP	Southern Hemisphere Mid-latitude MLT Response to the 2019 Antarctic Sudden Stratospheric Warming: PW-Tide-GW interactions revealed by Ground-based observations and Simulations	Qiao	Zishun
2	COUP	Revisiting the associative detachment reaction of nitrogen molecules with the anion of atomic oxygen in the context of gas discharges	Janalizadeh	Reza
2	COUP	Dynamical coupling between the low-latitude lower thermosphere and ionosphere via the non-migrating diurnal tide as revealed by concurrent satellite observations and numerical modeling	Gasperini	Federico
2	COUP	Impacts of Spatially Varying Eddy Diffusion Coefficient in the Lower Thermosphere on the Ionosphere and Thermosphere using GITM - Sensitivity Study	Malhotra	Garima
2	COUP	MJO modulation of winds and GWs in the NH high-latitude region	Li	Jintai
2	COUP	Supercell-generated Ionospheric Disturbances: Comparison of GITM-R simulations with GNSS observations	Tyska	Justin
2	COUP	Mechanism Studies of Madden-Julian-Oscillation Coupling into the Mesosphere/Lower Thermosphere Tides using SABER, MERRA-2, and SD-WACCMX	Kumari	Komal

2	COUP	Thermospheric Traveling Atmospheric Disturbances in Austral Winter from GOCE and CHAMP	Xu	Shuang
2	DATA	Assimilative Modeling of the Day-to-Day Variability of Equatorial Electrojet and its Longitudinal Dependence Using Ground- and Space-Based Magnetometer Data	Lien	Chuan-Ping
2	DATA	Prediction of Geomagnetic Field Disturbances across Alaska using Machine Learned LSTM Neural Networks	Blandin	Matthew
2	DATA	Coupled Thermosphere-Ionosphere Modeling of Global Neutral Densities Using Assimilated COSMIC Radio Occultation Data	Dietrich	Nicholas
2	DATA	Ionospheric Electron Density Modeling with Machine Learning	Dutta	Shweta
2	DATA	Reconstruction of meso-scale TEC structures using deep learning-based image completion	Pan	Yang
2	DATA	Mid-latitude SuperDARN backscatter classification using ray-tracing and neural networks	Kunduri	Bharat
2	DATA	Impact of Thermospheric Wind Data Assimilation on Ionospheric Electrodynamics using a coupled Whole Atmosphere Data Assimilation System	Hsu	Chih-Ting
2	DATA	Exploration of machine learning tools for the study of space weather and its impact on position approximation in GNSS systems	Fajardo Soria	George Steve
2	DATA	SWx TREC's Space Weather Data Portal: a quick-look tool for space weather events	Knuth	Jenny
2	DATA	LightDA: A Modular Library for Data Assimilation	Haiducek	John
2	DATA	PyScint	Smith	Jonathon
2	DATA	Spectra Analysis in the Faraday/Double Pulse Experiment at JRO	Flores	Roberto

2	DATA	Forecasting Efficiency of Ground Magnetic Field Perturbations using Machine Learning compared against Physics-Based Models	Pinto	Victor
2	DATA	Data Assimilation Retrieval of Electron Density Profiles from Ionosonde Virtual Height Data	Forsythe	Victoriya
2	EDU	Identifying ionograms: A citizen science approach	Ccanto Mayhua	Stephany
2	EDU	Creating opportunities for student training and citizen science using ScintPi	Wright	Isaac
2	EDU	An Undergraduate-to-graduate bridge program: Significant Opportunities in Atmospheric Research and Science (SOARS)	Maute	Astrid
2	EQIT	Resolving the Spatial/Temporal Ambiguity of the EIA and ETA Using a LEO CubeSat Swarm Configuration	Buynovskiy	Anton
2	EQIT	Revisiting Langevin modeling for ISR spectra: Numerical benchmarks and first results	La Rosa	Brian Humberto
2	EQIT	The relation between hmF2 and radio occultation scintillation amplitude index RO-S4 index observed using FORMOSAT-7/COSMIC-2	Duann	Yi
2	EQIT	Neural networks for ionogram forecasting	Aricoché	Jhassmin
2	EQIT	Estimation of ionospheric electron densities from 150 km echoes	Luyo	Kevin
2	EQIT	Space weather effects on the Brazilian equatorial and low-latitude ionospheric Maximum Usable Frequency (MUF) during the Saint Patrick's Day geomagnetic storm	Nwankwo	Onyinye
2	EQIT	Modeling Studies of the Morphology of Equatorial Plasma Drifts	Shidler	Sam

2	EQIT	Understanding the daily to monthly equatorial electrojet variability	Brando Soares	Gabriel
2	EQIT	Investigations of oxygen dayglow emission variability over low latitudes under the influence of equatorial electrodynamic processes	Kumar	Sunil
2	EQIT	Analysis and Comparison of Equatorial Spread-F Bubbles Observed in the 135.6 nm Airglow During Solar Minimum (GOLD) and Maximum (IMAGE)	Adkins	Vincent
2	EQIT	The low-latitude Ionospheric Sensor Network (LISN). Important results and future plans	Valladares	Cesar
2	EQIT	Diurnal and semidiurnal tides in the Mesosphere and Lower Thermosphere over the central coast of Peru	Suclupe	José
2	EQIT	Thermospheric Winds Over Huancayo, Peru	Khadka	Sovit
2	EQIT	Validation IVM Ion Density from the COSMIC-2 Mission	Wu	Qian
2	LTVI	Trends in the F2 region of the Ionosphere over Jicamarca: Preliminary results	Merino	Meyer



2	LTVI	Investigation of the Variability in OI 630 nm Nightglow Emission over Low-latitude Thermosphere	Saha	Sovan
2	LTVI	Analysis of ionospheric long-term trends sensitivity to factors involved in their estimation	Elias	Ana G.
2	LTVI	Investigation of Geocoronal Hydrogen Balmer-alpha Emission in the Southern Hemisphere Before and After the 2011 Puyehue-Cordón Caulle Volcano Eruption	Ranabhat	Arianna
2	LTVI	Multidecadal hydrogen variability	Nossal	Susan
<b>DAY 3 - Thursday, June 24</b>				
3	IRRI	Plasma Bubble Growth Rates During the September 2017 Geomagnetic Storm	Newheart	Anastasia
3	IRRI	Assessing HF radio wave propagation in Antarctica with a radio link between the McMurdo and South Pole stations	Liu	Binjie
3	IRRI	Time Lag between 2020 Geomagnetic Storms and Ionospheric Scintillation Detection	Royersmith	Brenna
3	IRRI	Spread F Prediction using Machine Learning	Luwanga	Christopher
3	IRRI	Impact of 09-15 November 2012 magnetic cloud storm on vTEC along West Euro-African GPS Chain	Shimeis	Amira

3	IRRI	Farley Buneman instabilities in the Auroral region	Rojas	Enrique
3	IRRI	Spread-F occurrence during geomagnetic storms near the southern anomaly crest in South America	González	Gilda
3	IRRI	Daytime electron density irregularities in the low latitude F region	Kil	Hyosub
3	IRRI	Machine Learning Prediction of Storm-time Ionospheric Irregularities from GNSS-derived ROTI maps Over North America.	Liu	Lei
3	IRRI	High-Resolution Modeling of Gradient Drift Instability in Polar Cap Patches	Redden	Mark
3	IRRI	Off-Great-Circle Propagation in the Undisturbed Ionosphere and its Effect on OTHR	Cameron	Taylor
3	ITIT	Deriving column-integrated thermospheric temperature with the N2 Lyman-Birge-Hopfield (2,0) band	Cantrall	Clayton
3	ITIT	Comparison of radar imaging methods	Yupanqui	Diego
3	ITIT	Neutral Wind Instrumentation on the Dynamo 2 Sounding Rocket Mission	Swanson	Diana
3	ITIT	Using TEC data to improve local IRI density estimations	Inonan	Marcos
3	ITIT	Pursuit of Atmospheric Column O/N2 Measurements from EUV Airglow	Tuminello	Richard
3	ITIT	Assessing ionospheric profilers with ISR historical data	Palacios	Alejandro
3	ITIT	Evaluating Multi-Satellite Density Consistencies to Improve Gas-Surface Interaction Modeling in Helium-rich Atmospheres	Bernstein	Valerie
3	ITIT	Asymmetry Equatorial Ionospheric Irregularities during Equinox Months	Seif	Aramesh
3	ITIT	Observations of Mid-latitude Irregularities Using the Oblique Ionosonde Sounding Mode for the HamSCI Personal Space Weather Station	Joshi	Dev Raj
3	ITIT	Ionosphere-Thermosphere Response to Pronounced High-Speed Streams Events during November 2018 - March 2019 as Observed by Ocean Buoys and Swarm-C and modeled by WACCM-X	Gasperini	Federico

3	ITIT	Upgrade of the Automatic Beam Switching (ABS) at Jicamarca Radio Observatory	Gonzales	Luis
3	ITIT	Calibration of the absolute flux spectra of e-POP suprathermal electron imager	Liang	Jun
3	ITIT	Using novel geospace sensor techniques to resolve high-latitude ionospheric plasma density structures and their solar drivers	Goodwin	Lindsay
3	ITIT	Airglow monitoring program in Central Europe	Mackovjak	Simon
3	ITIT	Overview and Simulations of the KiNET-X Sounding Rocket Mission	Barnes	Nathan
3	ITIT	Development of JROMAG-M103 Magnetometer for geomagnetism studies in Peru	Rojas Quispe	Ricardo Valentin
3	ITIT	Machine Learning Application to Incoherent Scattering Radar Spectrum Analysis	Mueller	Richard
3	ITIT	Understanding the neutral wave characteristics in the daytime thermosphere using radio technique	Mandal	Subir

3	ITMA	Validation of multistatic meteor radar analysis using realistic mesospheric dynamics from UA-ICON model: Reliability of gradients and vertical velocities	Charuvil Asokan	Harikrishnan
3	ITMA	Modeling and Testing Petite-Ion Probe Instrument Performance for the KiNET-X Sounding Rocket Mission	Moses	Magdalena
3	ITMA	Transient Luminous Event observations from Central Europe	Amrich	Samuel
3	ITMA	A Multi Tracer Analysis to Study the Chemical Composition Changes associated with the 2019 Sudden Stratospheric Warming Dynamics using SOFIE Observations	Das	Saswati
3	ITMA	JRO digital receiver modernization using ADCs with high-speed JESD204B data interface and FPGAs	Verastegui	Joaquin
3	ITMA	Preprocessing of two-dimensional interferogram data obtained from IGP optical instruments network	Barbaran Meza	Juan Carlos
3	LTVM	MLT summer length defined by mean zonal wind features observed for more than one solar cycle at mid- and high-latitudes in the northern hemisphere.	Jaen	Juliana

3	<b>POLA</b>	Statistical and event analysis of phase and amplitude scintillations associated with polar cap patches	Cardenas-O'Toole	Alanah M.
3	<b>POLA</b>	Interannual, Seasonal and Diurnal Variations of 10 years of PMC observations at McMurdo, Antarctica.	Prakash	Arunima
3	<b>POLA</b>	Waves-like Oscillations Seen in the Thermosphere by Fabry-Perot Interferometers Located in Alaska and Antarctica	Itani	Rajan
3	<b>POLA</b>	Measurements of the meridional advective acceleration and neutral wind forcing in the E-region at different geomagnetic activity levels	Mesquita	Rafael
3	<b>POLA</b>	The role of plasma convection in the formation of the polar cap density depletions.	Forsythe	Victoriya
3	<b>SOLA</b>	Identifying and quantifying drivers of upper atmospheric nitric oxide emissions using NARMAX methods	Nagar	Eliott
3	<b>SOLA</b>	Effects of Solar Flares and Their Characteristics on sudden frequency deviations observed by SuperDARN HF radars	Chakraborty	Shibaji
3	<b>SOLA</b>	An low latitude ionospheric response to structures of the declining phase of solar cycle 24.	Santos	Stella
3	<b>SOLA</b>	Great Auroral Storms of the Last 500 Years	Knipp	Delores
3	<b>SOLA</b>	Estimating Atmospheric Electron Precipitation from FIREBIRD-II CubeSat Observations	Duderstadt	Katharine
3	<b>SOLA</b>	The Impact of Solar Activity on Forecasting the Upper Atmosphere via Assimilation of Electron Density Data	Kodikara	Timothy

COUP Coupling of the Upper Atmosphere with Lower Altitudes

DATA Data Assimilation and Management

EQIT Equatorial Ionosphere or Thermosphere

ITMA Instruments or Techniques for Middle Atmosphere

LTVI Long-Term Variations of the Ionosphere-Thermosphere

LTVM Long Term Variations of the Mesosphere and Lower  
METR Meteor Science other than wind observations  
MLTG Mesosphere and Lower Thermosphere Gravity Waves  
MLTL Mesosphere and Lower Thermosphere Lidar Studies  
MLTS Mesosphere or Lower Thermosphere General Studies  
MLTS Mesosphere or Lower Thermosphere General Studies  
PLAN Planetary Studies  
SOLA Solar Terrestrial Interactions in the Upper Atmosphere  
SPRT Sprites  
IRRI Irregularities of Ionosphere or Atmosphere  
ITIT Instruments or Techniques for Ionospheric or Thermospheric  
MDIT MidLatitude Thermosphere or Ionosphere  
MITC Magnetosphere-Ionosphere-Thermosphere Coupling  
POLA Polar Aeronomy  
EDU Education