

2019 CEDAR STUDENT POSTER CONTEST

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**POSTER AWARDS**

## PARTICIPATION

Tuesday MLT & IT Session

51

Wednesday IT Session

38

## POSTER JUDGES & SUPPORT

Gang Lu  
Meghan Burleigh  
Dustin Hickey  
Piyush Mehta  
Seebany Datta-Barua  
Chih-Ting Hsu  
Diana Loucks  
Joe McInerney  
Nick Pedatella  
Shun-Rong Zhang  
Brian Harding  
Susan Nossal  
Jonathan Snively  
Liyong Qian  
Loren Chang  
Astrid Maute

Lynn Harvey  
Yen-Jung (Joanne) Wu  
Fabio Vargas  
Cissi Lin  
Lindsay Goodwin  
Mack Jones Jr.  
Cheng Sheng  
Bruce Fritz  
Federico Gasperini  
Julio Urbina  
Naomi Maruyama  
Victoriya Forsythe  
Matthew Young  
Titus Yuan  
Hassan Akbari

## EVALUATION COMMENTS

- ▶ What was done well?
- ▶ What could be improved?
- ▶ Are there any relevant papers? Experts who might be interested?

**PICK UP YOUR EVALUATION SHEETS AT THE  
REGISTRATION DESK!**

## EVALUATION RUBRICS

Student Name and Institution _____		Poster # _____				
Below Average 1	2	Average 3	4	Above Average 5	Weight	Points
<b>1. Was the poster summarized clearly in a 10-minute uninterrupted presentation? (max 50 points)</b>						
The poster was not presented or was not explained clearly.		The poster was well-summarized, with opportunities to improve clarity or time management.		The poster was clearly summarized within the time given, showing ability to tailor the delivery for the audience.	10	
<b>2. Was the student able to clarify the scientific issues and objectives, demonstrating understanding? (max 50 points)</b>						
The scientific issues and objectives were not clearly explained.		The scientific issues and objectives were explained clearly, with opportunities for improvement.		Clear and comprehensive understanding of scientific issues and objectives, and how they were addressed, were demonstrated.	10	
<b>3. Was the student able to describe and demonstrate understanding of the methodology? (max 50 points)</b>						
The methodology was not clearly described and/or the understanding was not demonstrated in the presentation.		The methodology was presented in a way that was generally comprehensible and demonstrated understanding.		The methodology was comprehensively and clearly presented, demonstrating significant understanding.	10	
<b>4. Were the conclusions stated concisely and clearly? (max 50 points)</b>						
The presented conclusions of this study are unclear.		The conclusions are stated, but not fully supported by the work presented.		The conclusions and significance of the results are clearly shown and supported.	10	

► [https://cedarweb.vsp.ucar.edu/wiki/index.php/Workshop:Student\\_Posters\\_competition](https://cedarweb.vsp.ucar.edu/wiki/index.php/Workshop:Student_Posters_competition)

# TUESDAY MLT & IT POSTER AWARDS

**Undergraduate Award**

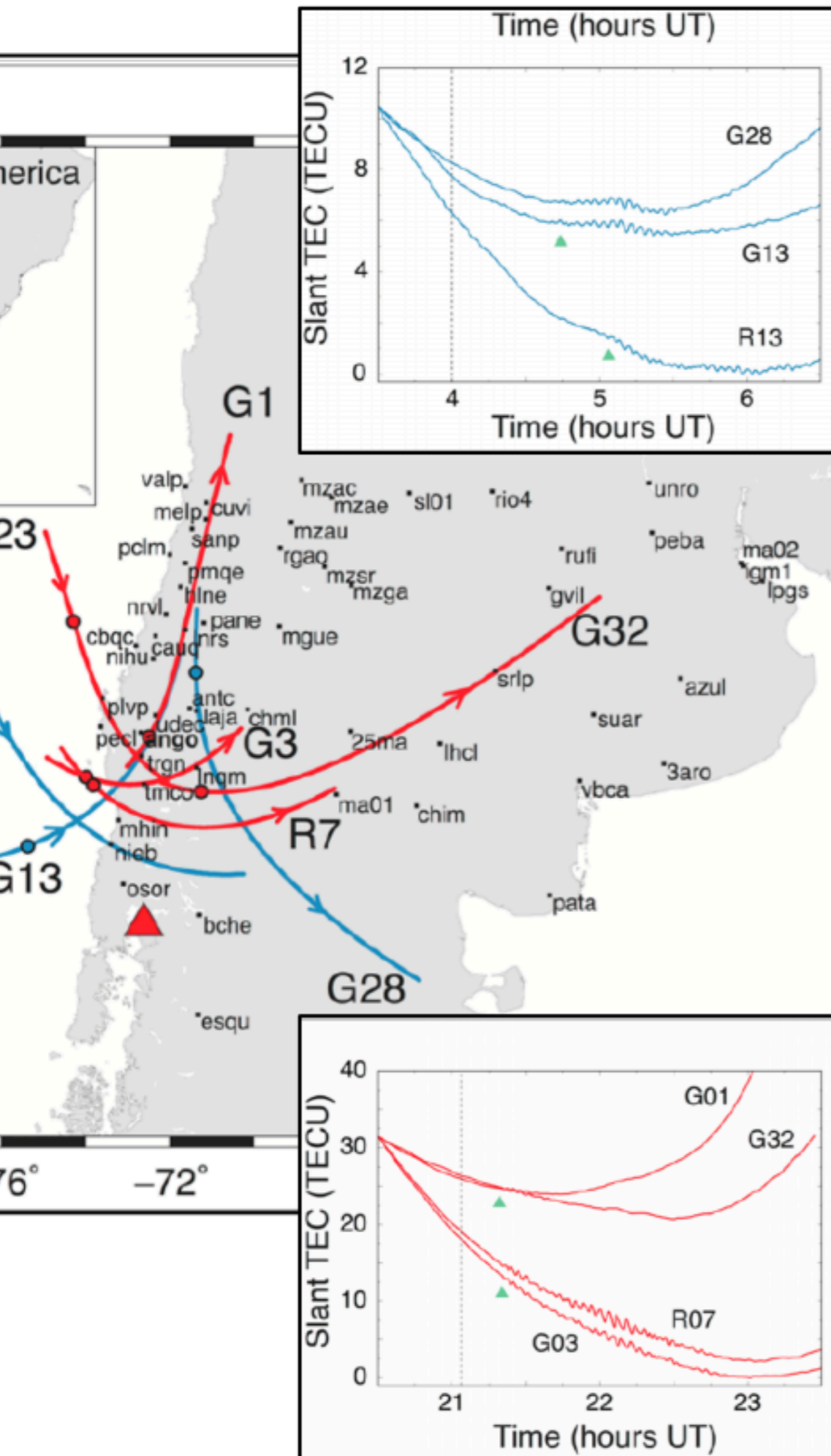


# JUSTIN TYSKA

## UNIVERSITY OF TEXAS AT ARLINGTON

### VOLCANO-GENERATED IONOSPHERIC DISTURBANCES: COMPARISON OF GITM-R SIMULATIONS WITH GNSS OBSERVATION

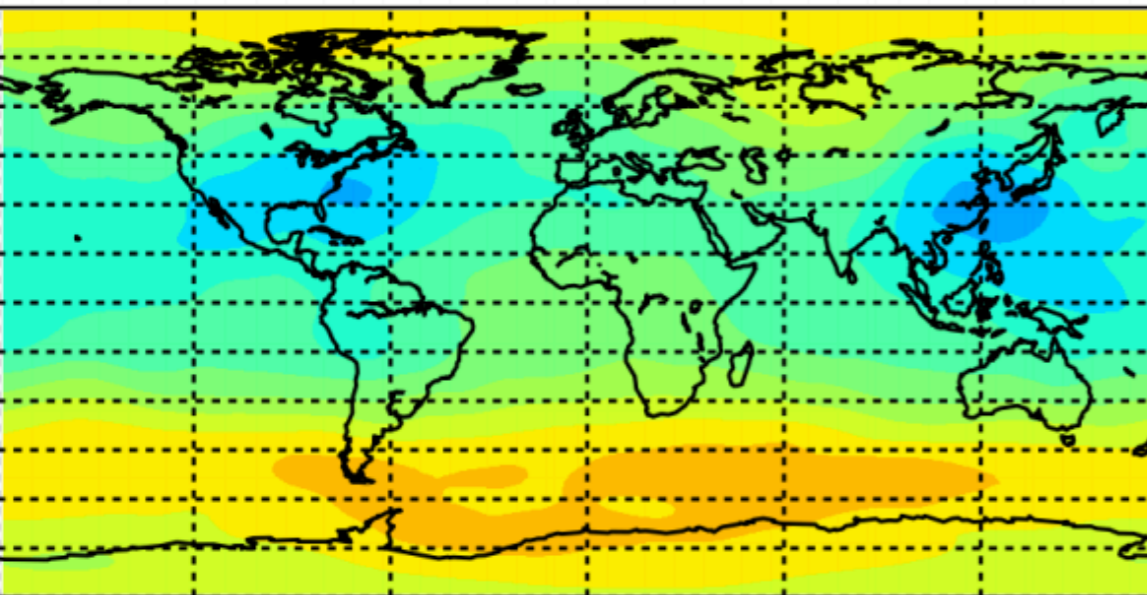
### Undergraduate Award





**Honorable Mention**

Averaged Atomic Oxygen ( $m^{-3}$ ) at 100.0 km

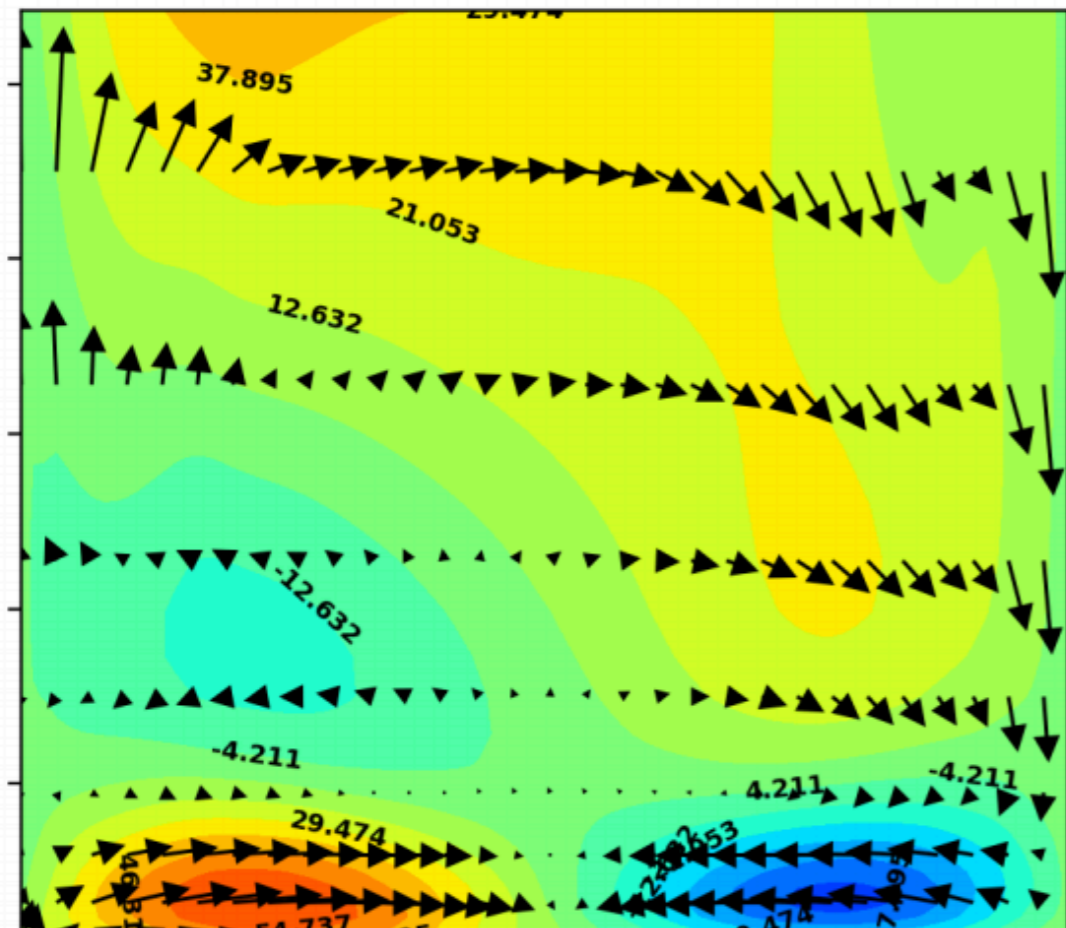


Longitude

2010-01-24 00:00 - 2010-02-05 23:30

## WACCM-X driven GITM

M-X V (m/s) 2010/01/24 00:00 : 2010/02/05 23:30

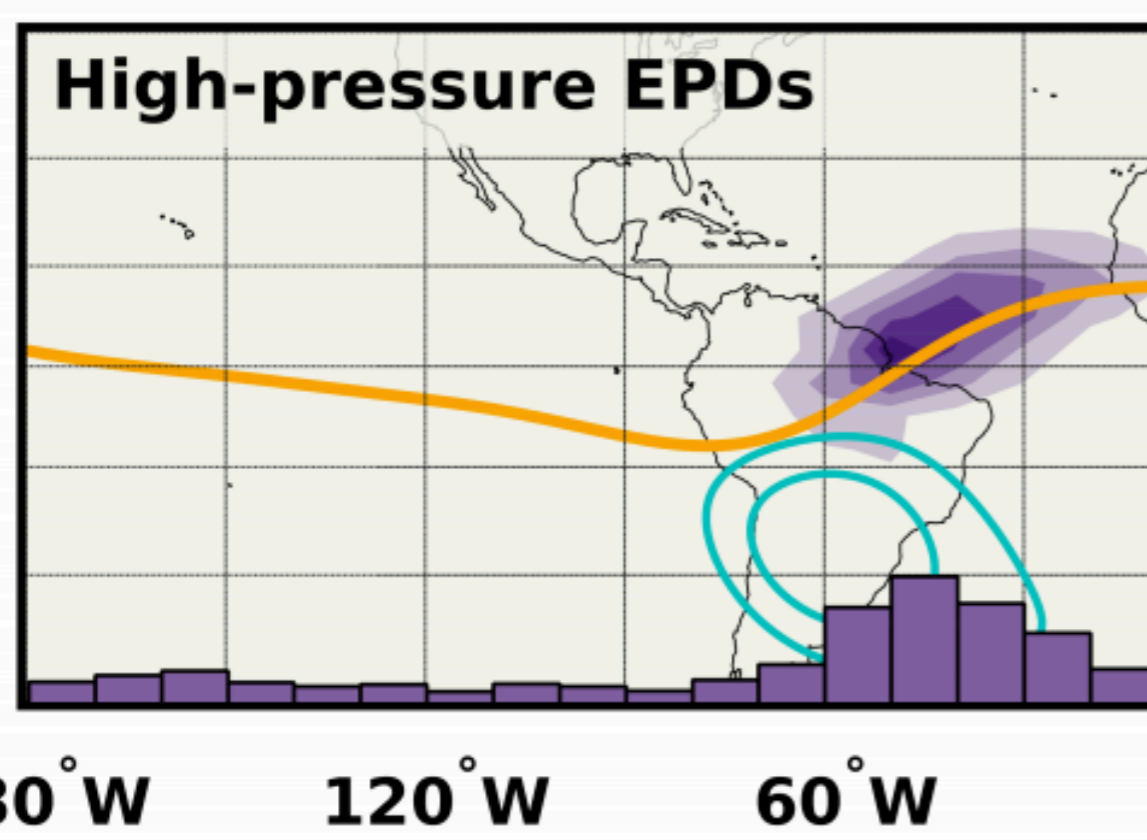
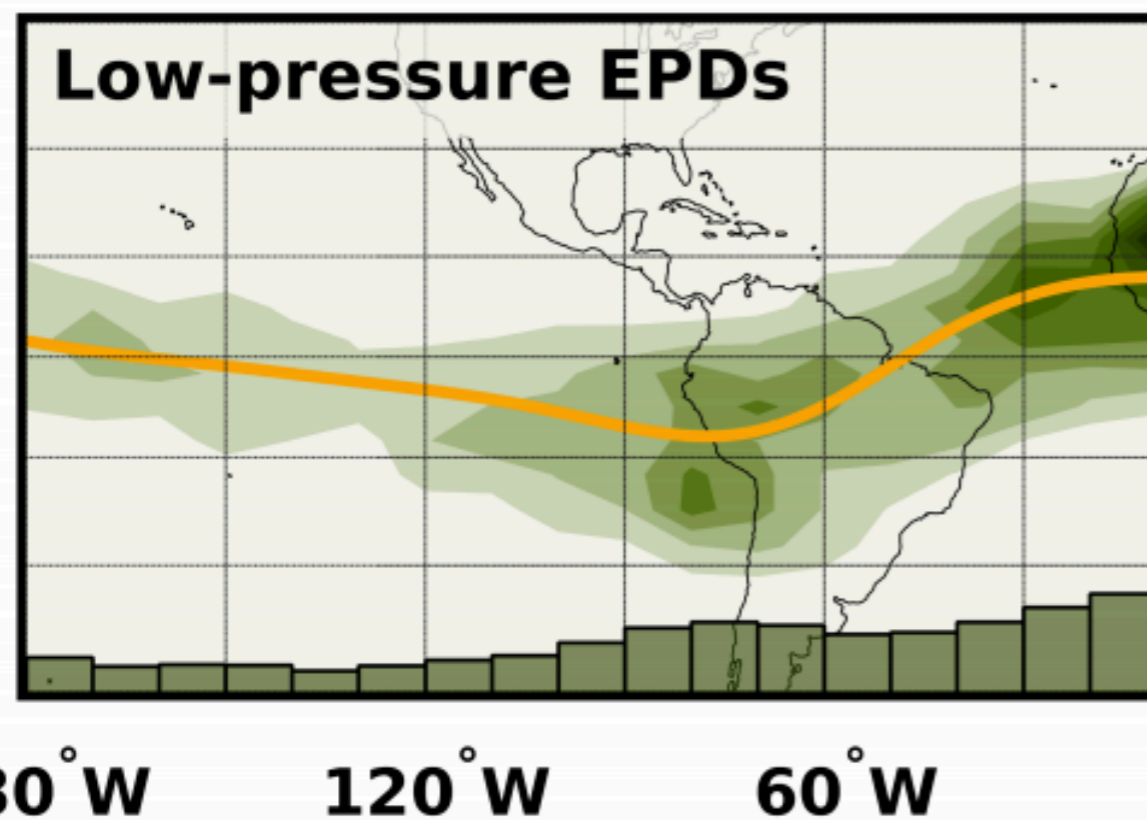


# GARIMA MALHOTRA

## UNIVERSITY OF MICHIGAN

### UNDERSTANDING THE EFFECTS OF LOWER THERMOSPHERIC ATOMIC OXYGEN ON UPPER IONOSPHERE-THERMOSPHERE SYSTEM

## Honorable Mention



# JUAN RODRÍGUEZ-ZULUAGA

GFZ POTSDAM

ASSESSMENT OF THE PLASMA AND MAGNETIC PRESSURE BALANCE ACROSS EQUATORIAL PLASMA DEPLETIONS

**Honorable Mention**

LEIBNIZ-INSTITUT  
FÜR  
ATMOSPHEREN  
PHYSIK

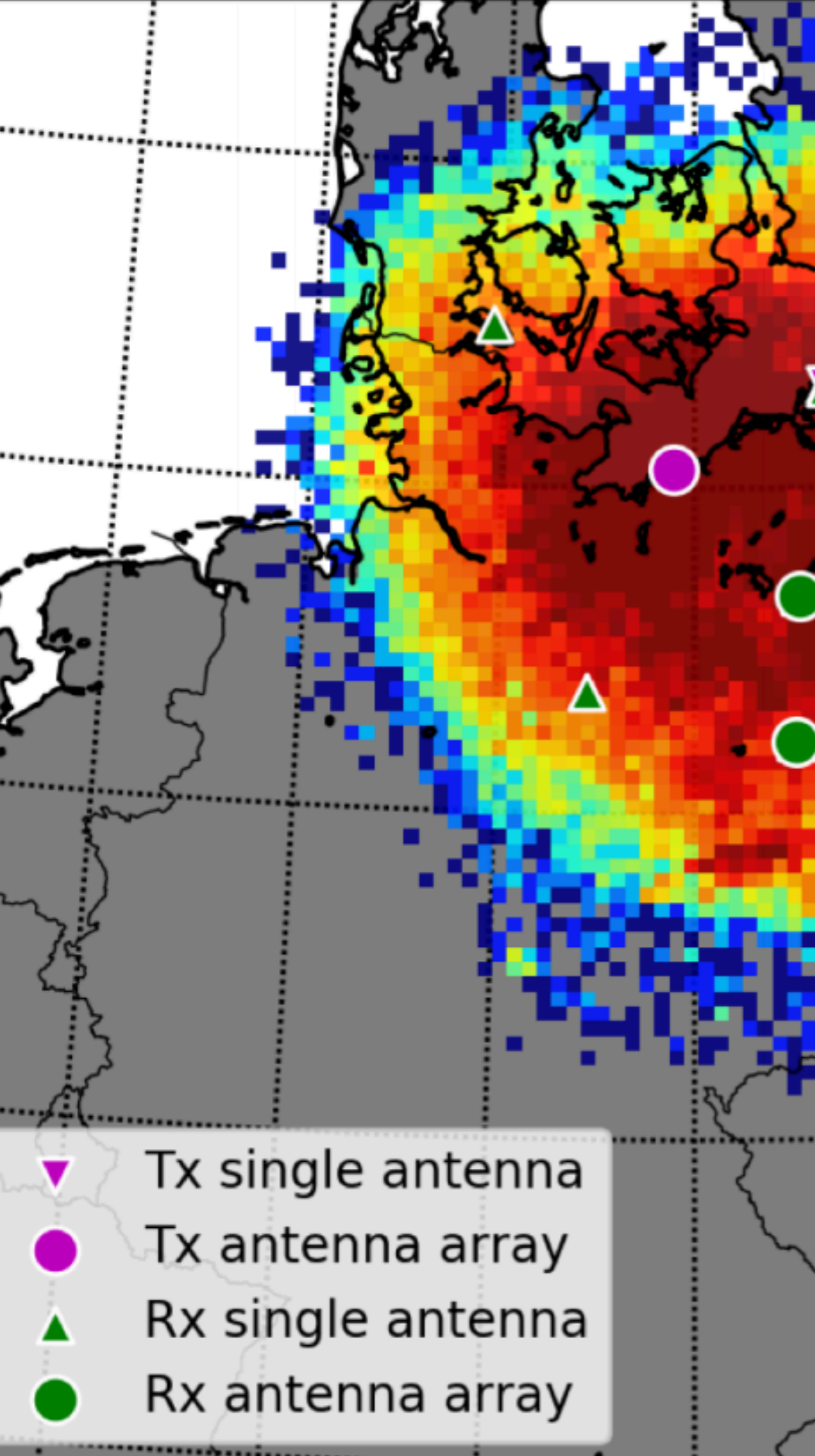


**JUAN URCO**

**LEIBNIZ-INSTITUTE OF ATMOSPHERIC  
PHYSICS**

**SPARSE METEOR SIGNAL RECOVERY  
FROM MIMO RADAR MEASUREMENTS**

**Honorable Mention**



- ▼ Tx single antenna
- Tx antenna array
- ▲ Rx single antenna
- Rx antenna array

**Second Place**



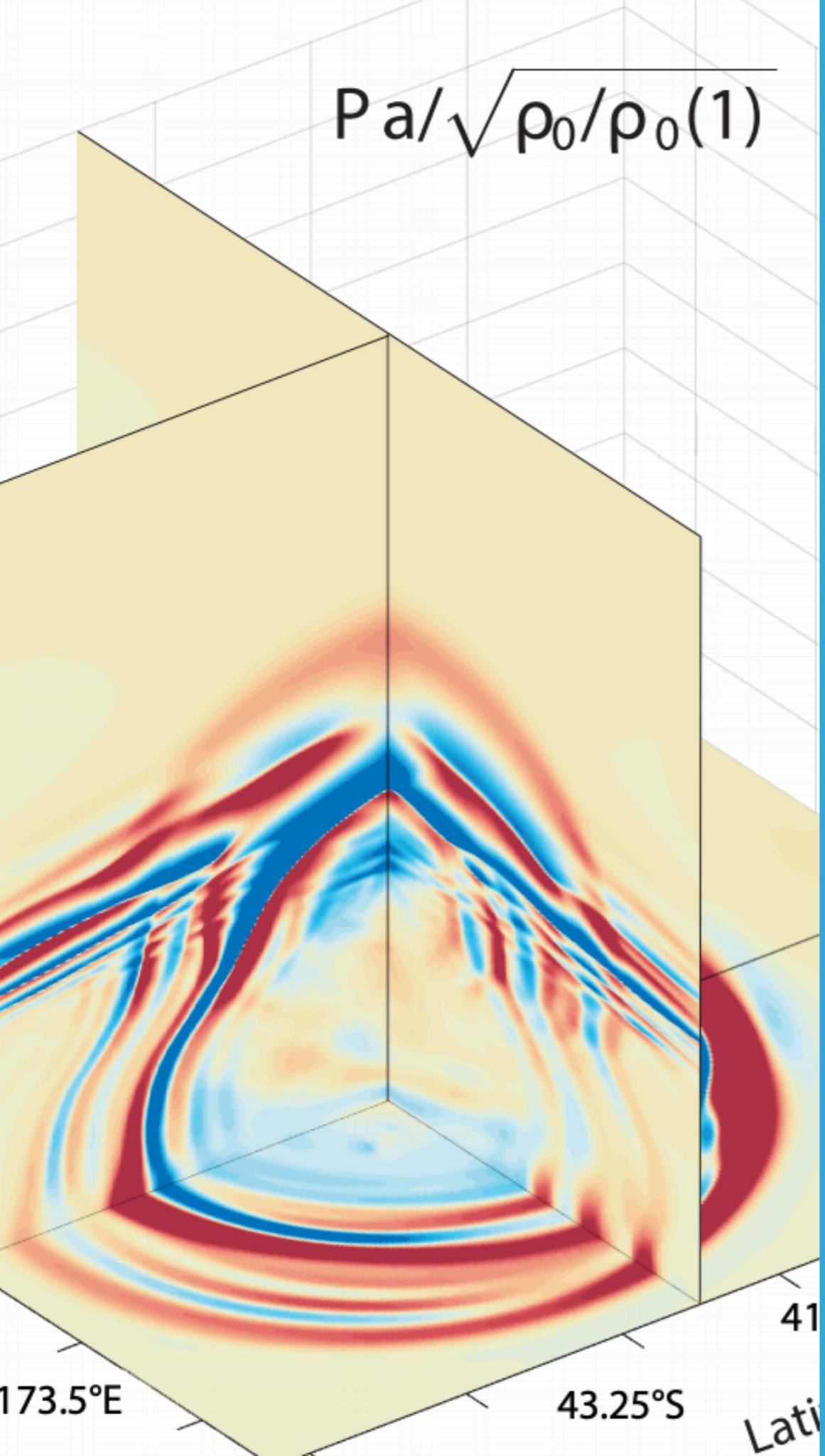
# MAIMAITIREBIKE MAIMAITI

VIRGINIA TECH

A DEEP LEARNING BASED APPROACH TO  
PREDICT THE ONSET OF MAGNETIC  
SUBSTORMS

Second Place

Bx, By, Bz, Vx, Np	0.75	0.73
Bx, By, Bz, Vx	0.75	0.71
By, Bz, Vx, Np	0.74	0.73
Bx, Bz, Vx, Np	0.74	0.73
Bx, By, Bz, Np	0.73	0.67
Bx, By, Vx, Np	0.69	0.58
By, Bz, Vx	0.75	0.7
Bz, Vx	0.75	0.7
Bz	0.71	0.68
Vx	0.69	0.51
By	0.64	0.49
Bx	0.65	0.43
Np	0.58	0.35
	<i>Precision</i>	<i>Recall</i>



# PAVEL INCHIN

**EMBRY-RIDDLE AERONAUTICAL UNIVERSITY**

**ATMOSPHERE AND IONOSPHERE  
RESPONSES TO INFRASONIC ACOUSTIC  
WAVES DRIVEN BY THE 2016 KAIKOURA  
EARTHQUAKE**

**Second Place**

**First Place**





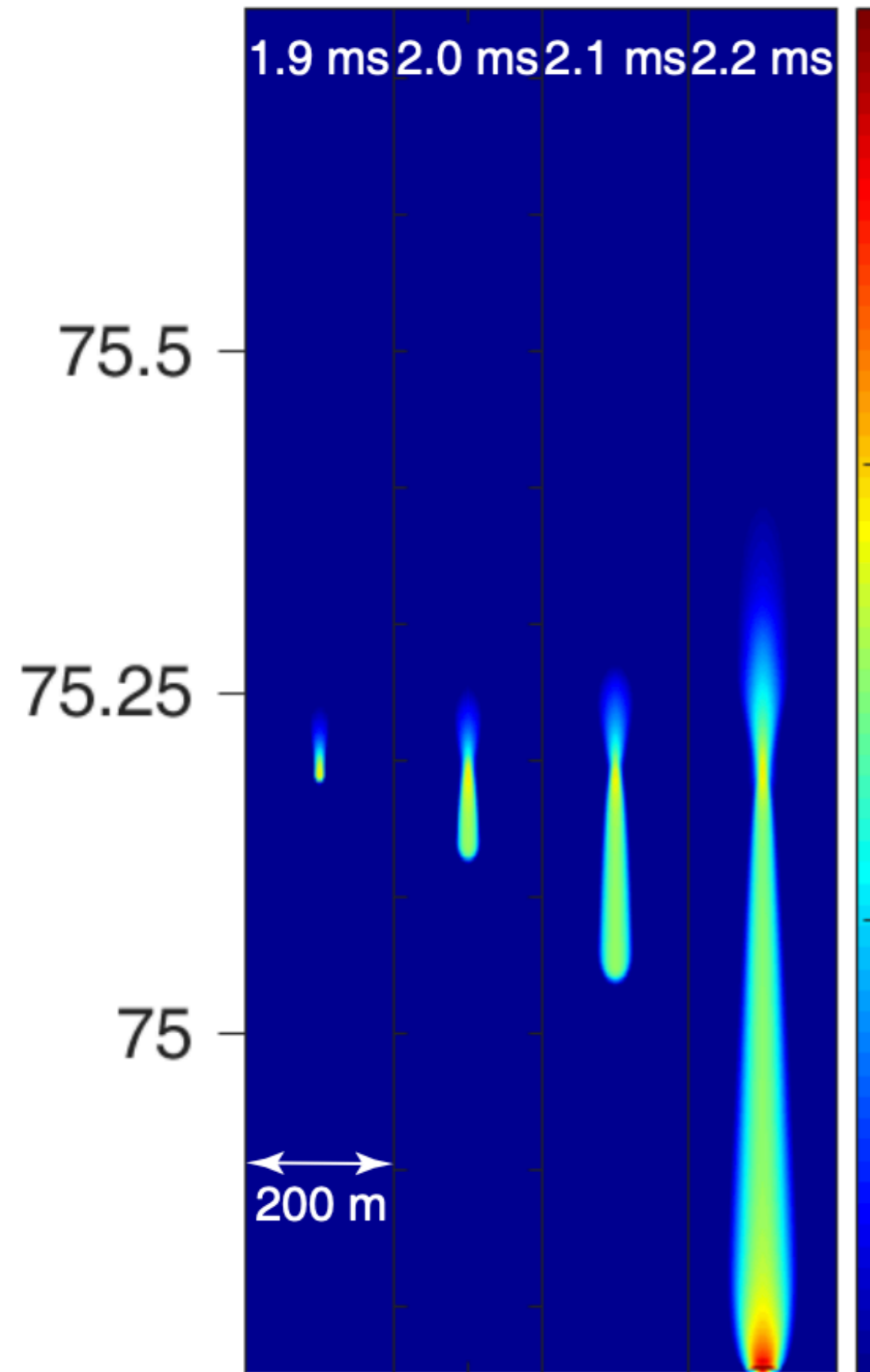
**PennState**  
College of Engineering

# REZA JANALIZADEH CHOOBBASTI

**PENNSYLVANIA STATE UNIVERSITY**

**PHOTOIONIZATION AND ELECTRON IMPACT  
IONIZATION OF METALLIC SPECIES AT  
SPRITE ALTITUDES AS A MECHANISM OF  
INITIATION OF SPRITE STREAMERS**

**First Place**



**WEDNESDAY IT  
POSTER AWARDS**

**Undergraduate Award**

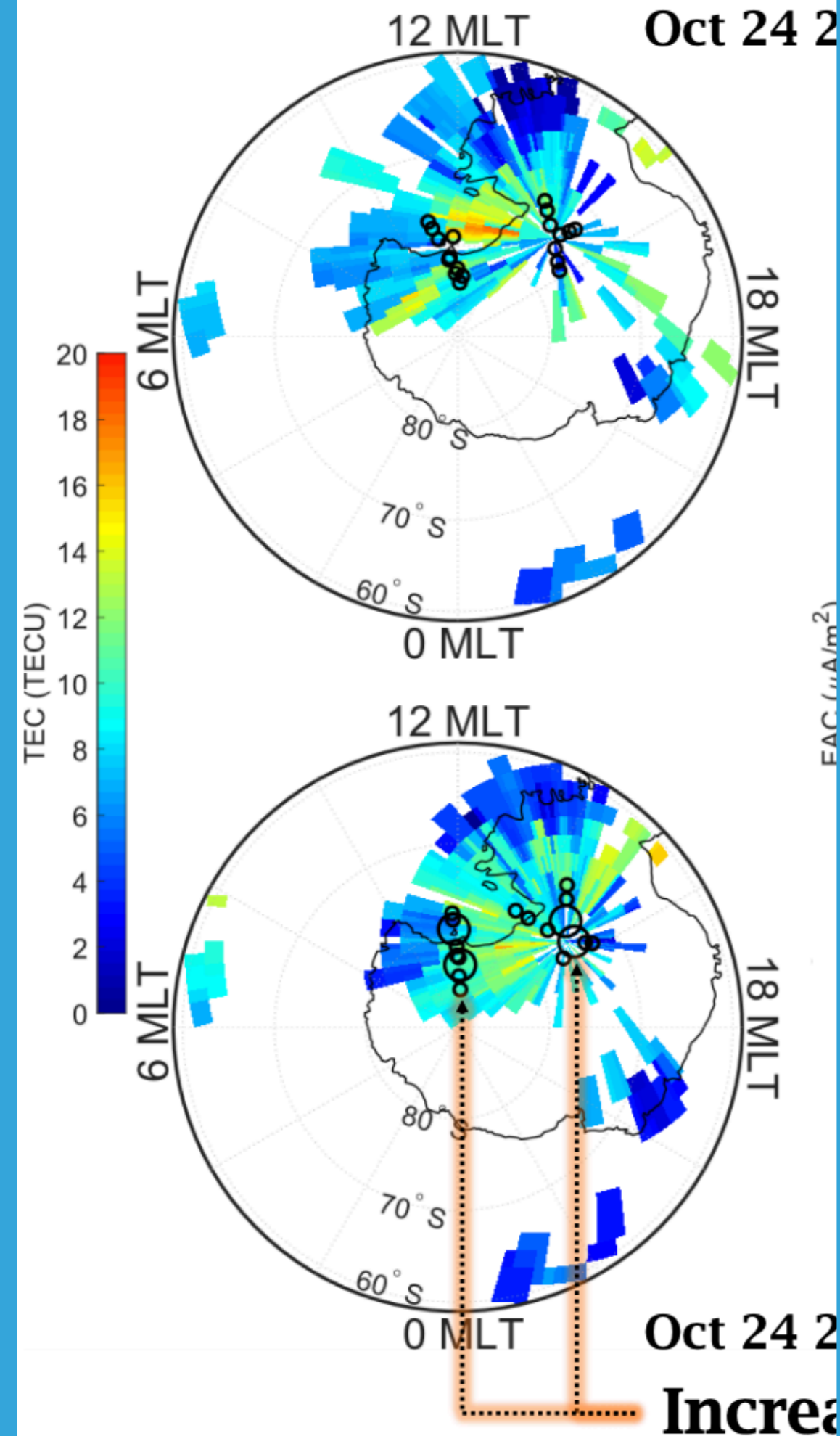


# THOMAS COPPEANS

## UNIVERSITY OF MICHIGAN

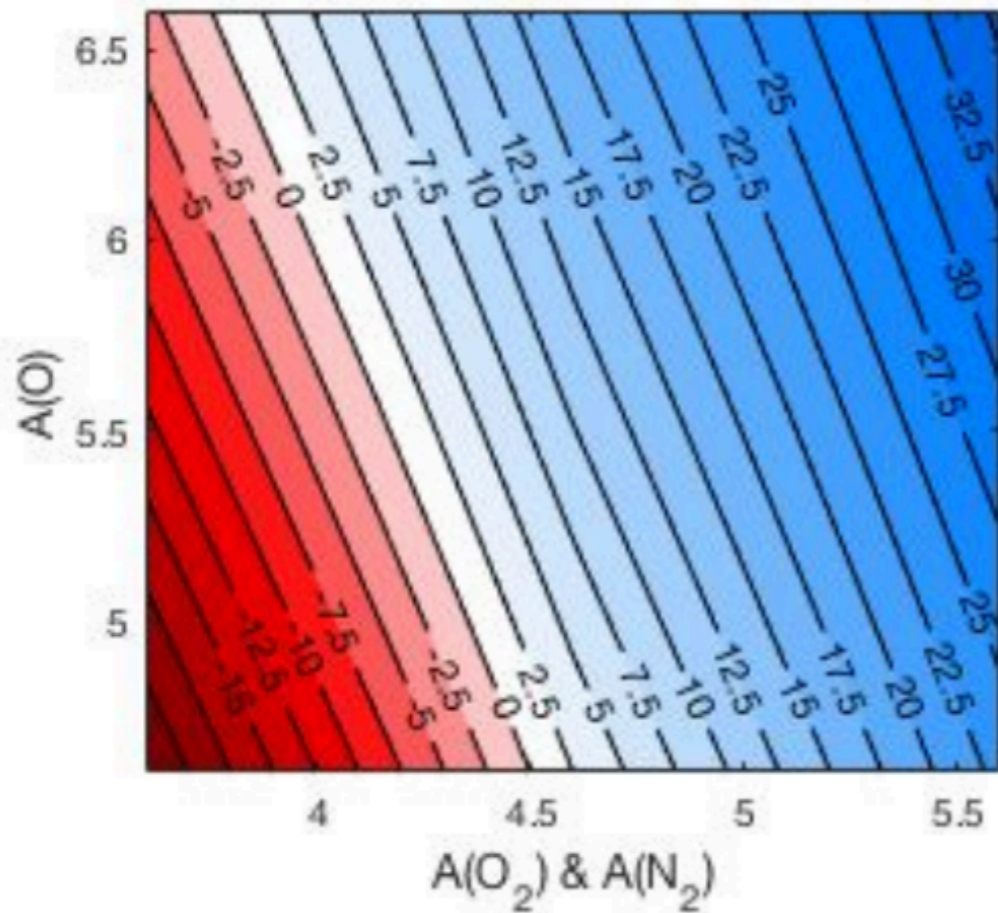
GNSS TEC AND SCINTILLATION  
VARIATIONS FOLLOWING SOLAR WIND  
DYNAMIC PRESSURE ENHANCEMENT

### Undergraduate Award

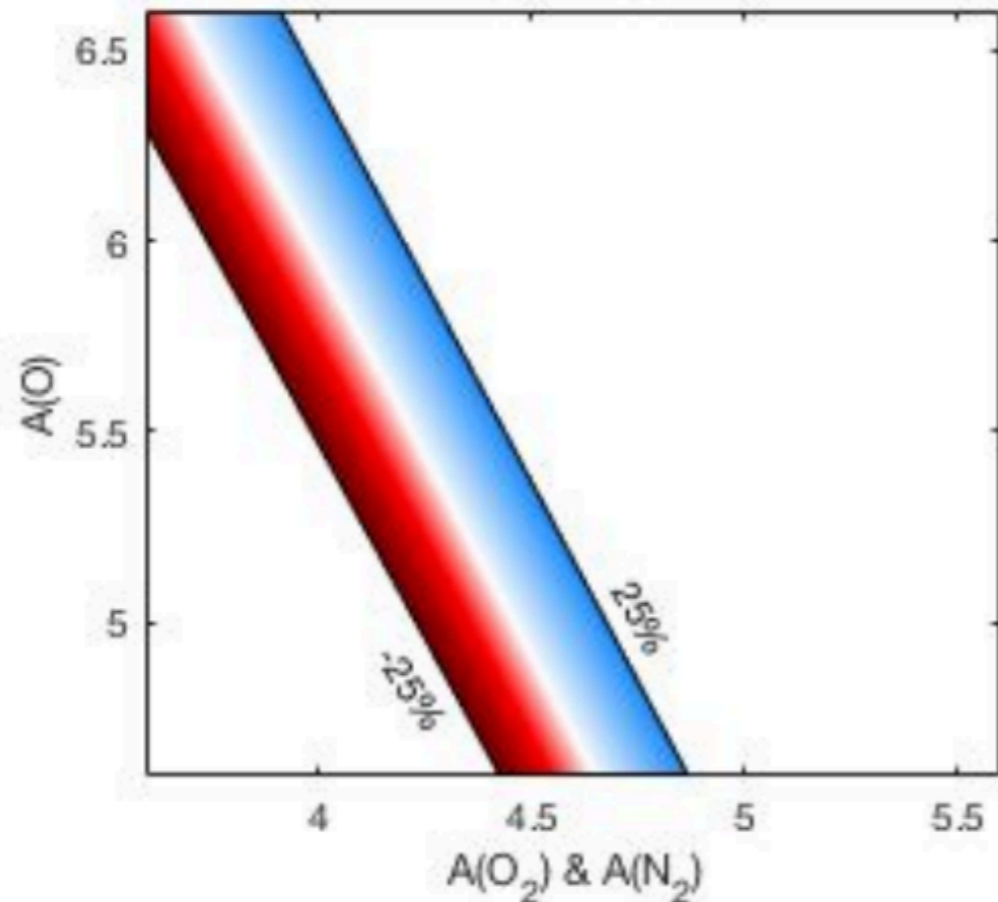


**Honorable Mention**

2004



2002 x 2004



UNIVERSITY OF  
MICHIGAN

# BRANDON PONDOR

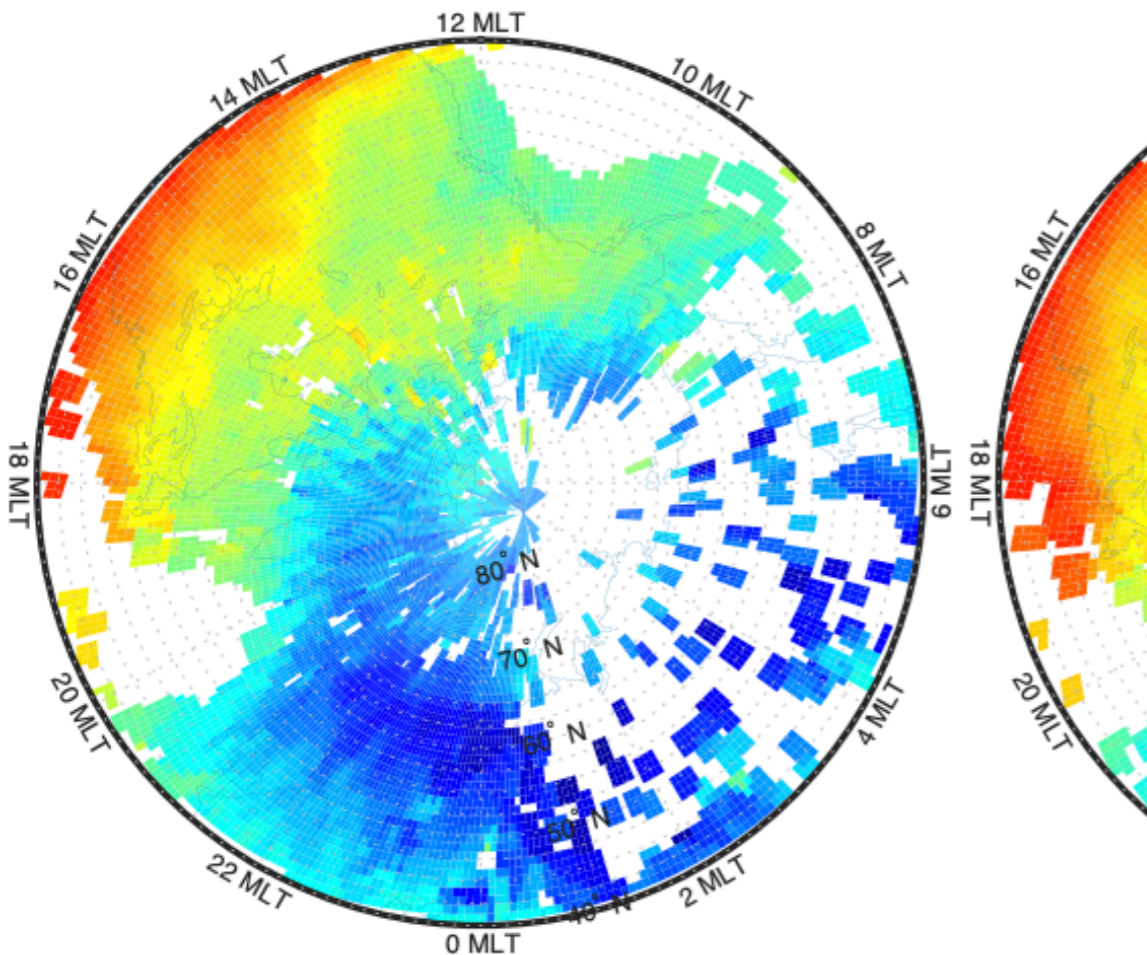
## UNIVERSITY OF MICHIGAN

### MODELING THE EARTH'S THERMAL CONDUCTION COEFFICIENTS

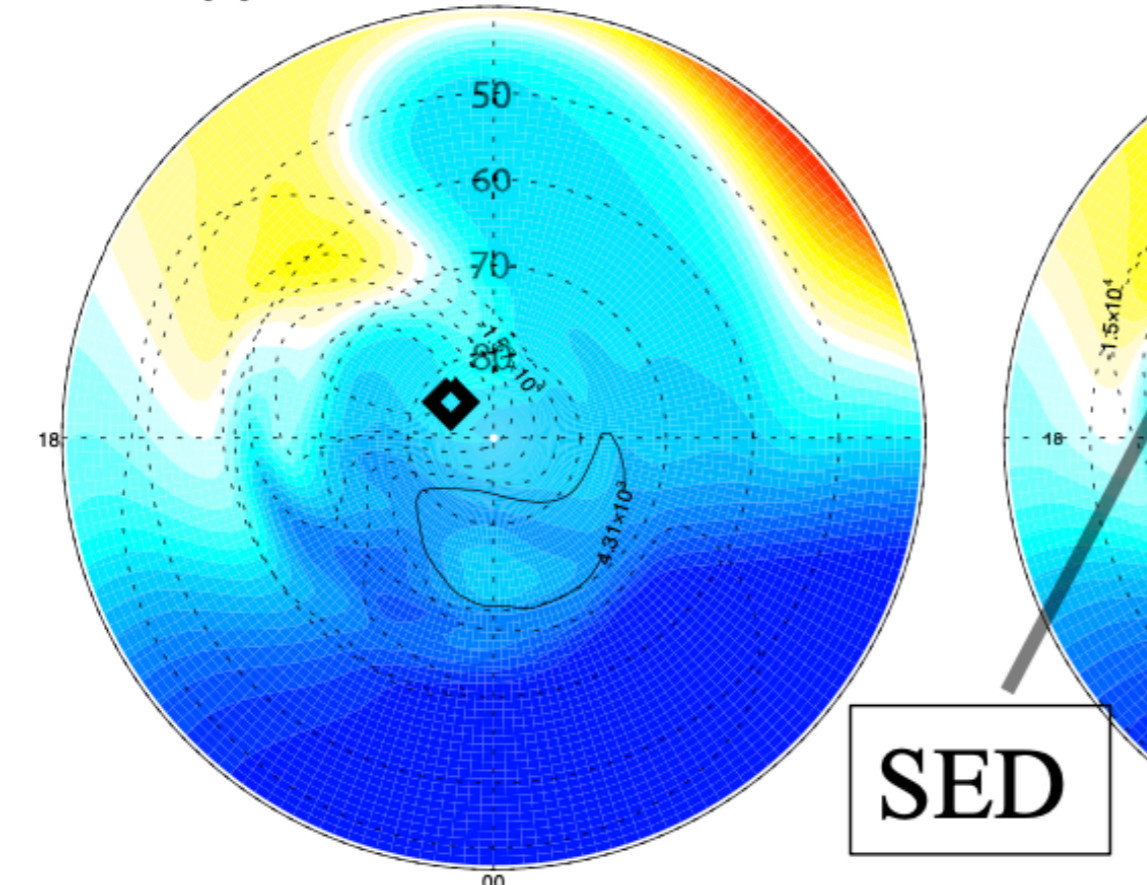
## Honorable Mention

21:00

GPS TEC



[e-] under Potential at 349.4 km Altitude



SED



# ZIHAN WANG

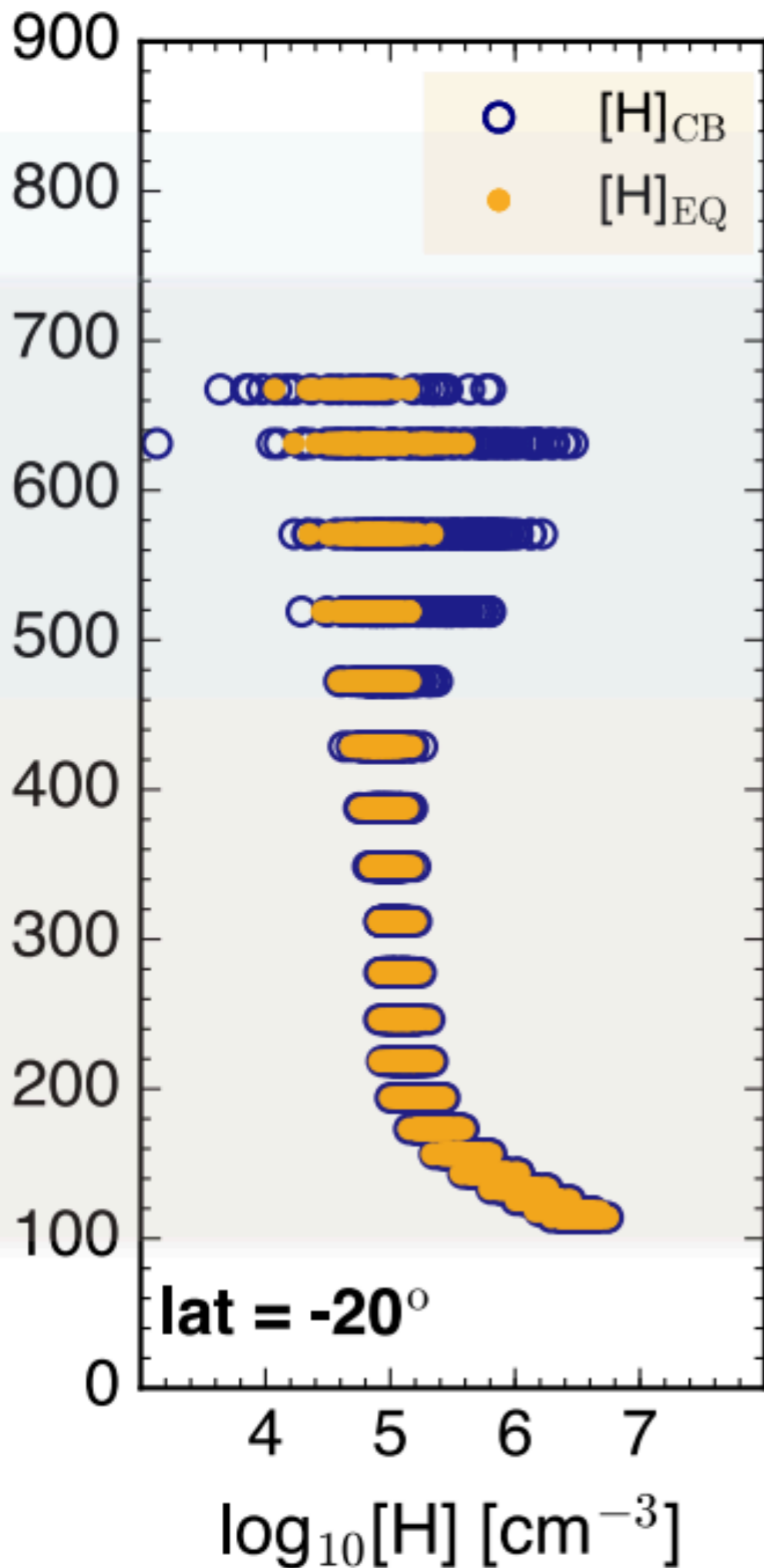
## UNIVERSITY OF MICHIGAN

### SEGMENTATION OF STORM ENHANCED DENSITY (SED) BY BOUNDARY FLOWS ASSOCIATED WITH WESTWARD DRIFTING PARTIAL RING CURRENT

### Honorable Mention

**Second Place**





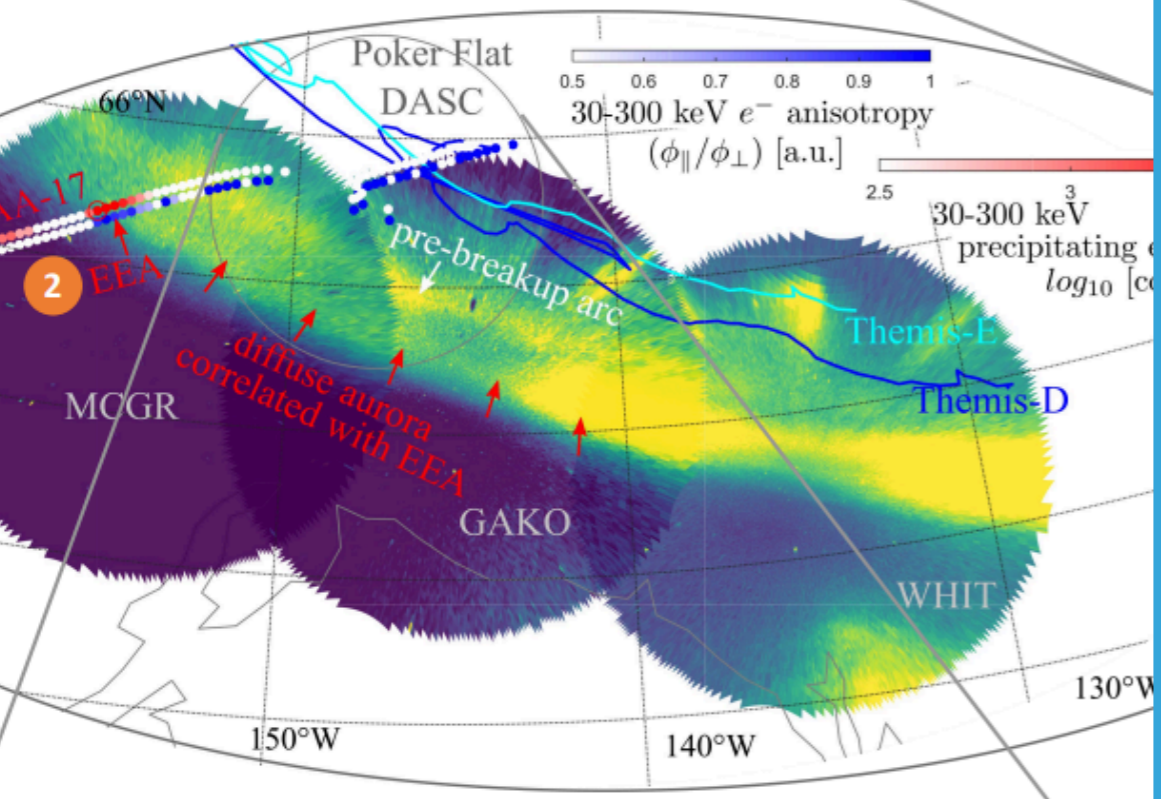
**PRATIK JOSHI**

**UNIVERSITY OF ILLINOIS AT  
URBANA CHAMPAIGN**

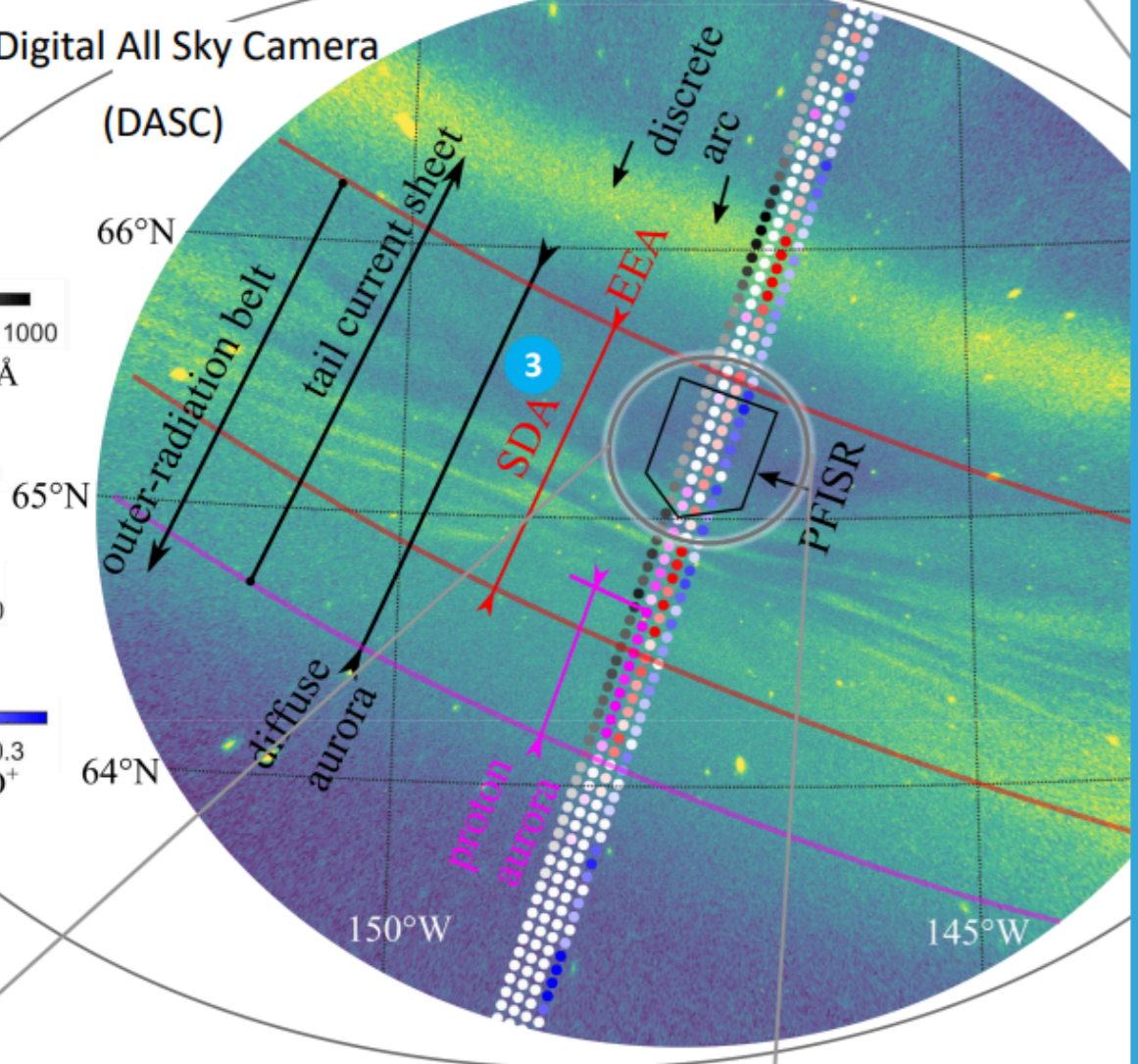
**PARAMETRIC ESTIMATION OF NEUTRAL  
HYDROGEN DENSITY USING PROTON  
CONTINUITY BALANCE WITH TIMED/  
GUVI AND SAMI3**

**Second Place**

11:19 UT: THEMIS GBO



11:19 UT: Poker Flat



11:19 UT: Poker Flat



# NITHIN SIVADAS

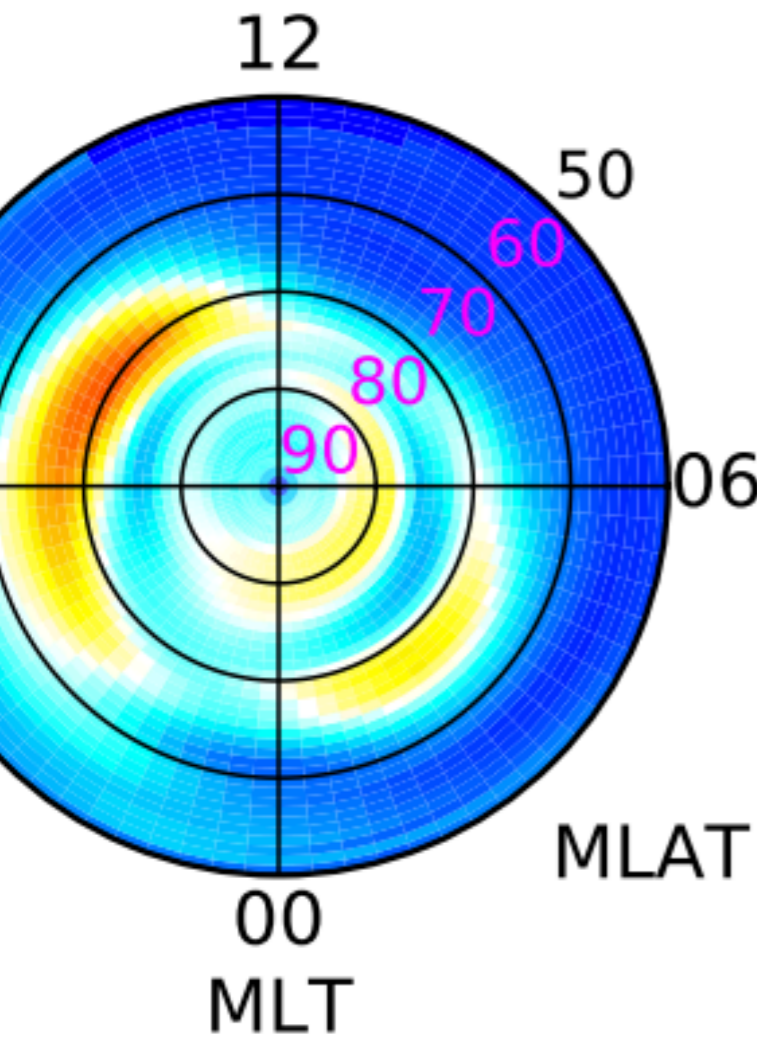
**BOSTON UNIVERSITY**

**OPTICAL SIGNATURES OF THE OUTER RADIATION BELT BOUNDARY**

**Second Place**

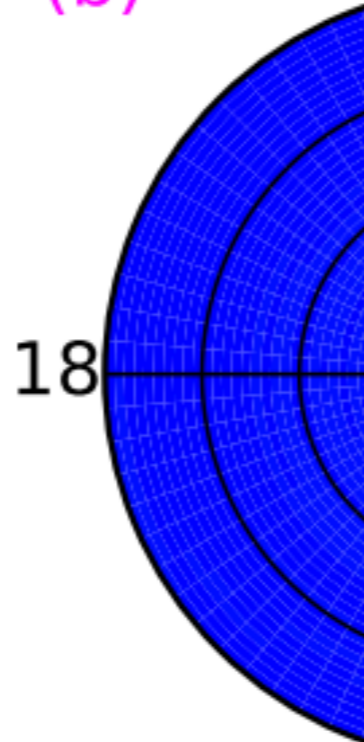
**First Place**

>500 km



100

(b)

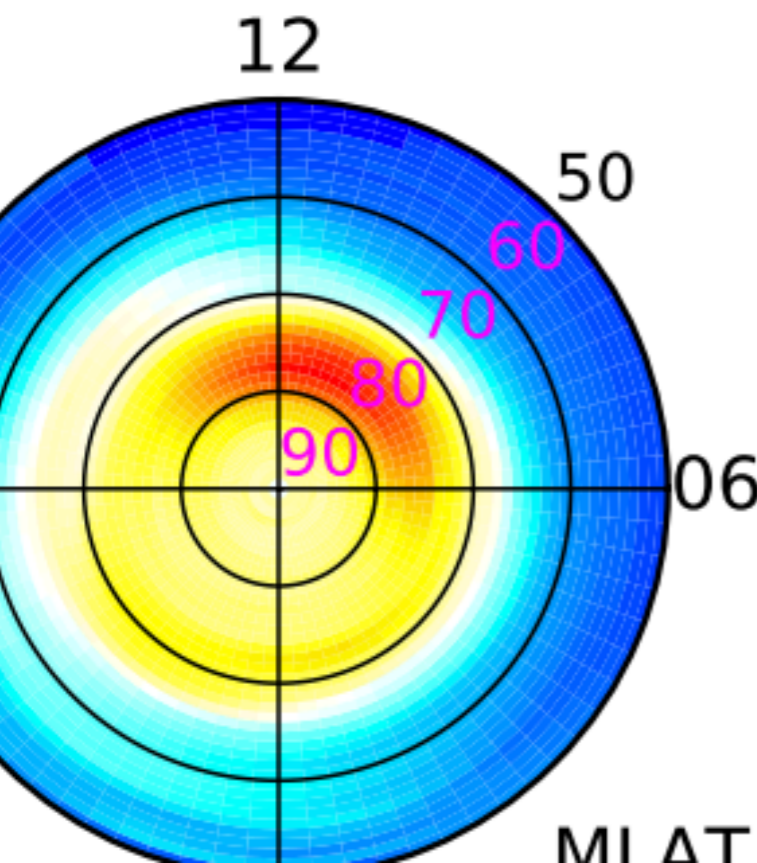


**QINGYU ZHU**

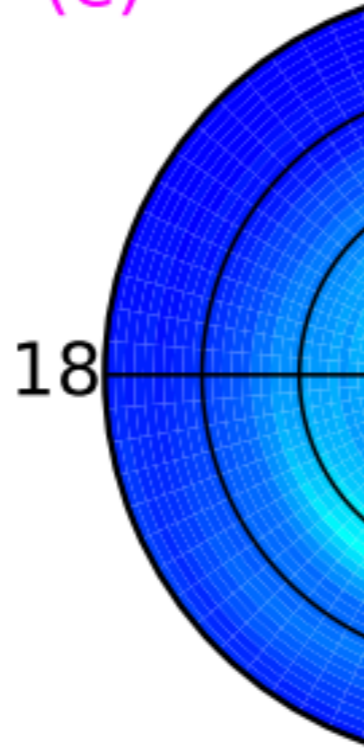
**UNIVERSITY OF TEXAS AT  
ARLINGTON**

**IMPACTS OF MULTI-SCALE FIELD-ALIGNED  
CURRENTS (FACS) ON THE IONOSPHERE-  
THERMOSPHERE SYSTEM: GITM SIMULATION**

**First Place**



(e)



## STUDENT POSTER AWARDS

### Tuesday (MLT & IT)

Reza Janalizadeh Choobbasti

Pavel Inchin

Maimaitirebike Maimaiti

Garima Malhotra

Juan Rodríguez-Zuluaga

Juan Urco

Justin Tyska

### Wednesday (IT)

Qingyu Zhu

Pratik Joshi

Nithin Sivadas

Brandon Pondor

Zihan Wang

Thomas Coppeans