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2022 CEDAR STUDENT POSTER CONTEST

# Poster Awards

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# *Participation*

Tuesday (MLT): 39 posters

Wednesday (IT): 34 posters

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# Acknowledgments

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## **MLT Judges** (*Jia Yue, Lindsay Goodwin*)

Reza Janalizadeh	Mack Jones
Chris Heale	Seebany Datta-Barua
Jack Wang	Erin Lay
Min-Yang Chou	Nick Pedatella
Kim Nielsen	Titus Yuan
Corwin Wright	Chih-Ting Hsu
Liyang Qian	Devin Huyghebaert
Chihoko Cullens	

## **IT Judges** (*Matt Zettergren, Endawoke Yizengaw*)

Bruce Fritz	Sukanta Sau
Paul Inchin	Deepak Karan
Meghan Burleigh	Qian Wu
Yen-Jung Wu	Jonathan Makela
Romina Nikoukar	
Leslie Lamarche	
Jeff Klenzing	
Qingyu Zhu	

**!Thanks to *Astrid Maute* for helping us organize and stay on track!**

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# Evaluations

**CEDAR Workshop Student Poster Competition:  
1st Round Score Sheet**

*Judges grade the poster in 6 weighted categories from 1 (low) to 5 (high)*

Student's Last Name \_\_\_\_\_ First Name \_\_\_\_\_ Institution \_\_\_\_\_ Poster # \_\_\_\_\_

Below Average 1	2	Average 3	4	Above Average 5	Weight	Points
<b>1. Is the title well-chosen and informative? (max 25 points)</b>						
The title is not clearly relevant to the content.		The title mostly conveys the content of the poster.		The title is clearly worded, succinct, and informative.	5	
<b>2. Are the problem and objectives clearly stated, emphasizing the new or original aspects of the work? (max 75 points)</b>						
The problem and motivations of the study are not clearly stated.		The problem and motivations are mostly conveyed, connections to prior work and implications for the science / community are mentioned.		The problem and motivations are clearly stated, with impressive connections to prior work and implications for the science / community.	15	
<b>3. Are the methodology and results clearly presented, including clear figures, graphs, etc., as required? (max 125 points)</b>						
Methodology and results are vague or absent; figures, graphs, etc., are not clear.		Methodology and results are mentioned, but some aspects are unclear or lack relevant information; figures, graphs, etc. are adequate.		Methodology and results are comprehensively and clearly demonstrated, using figures, graphs, etc., beneficially.	25	

Each question ranked 1-5; then a weight applied

*Written comments are included at the end of the score sheet*

Two rounds of scoring:  
one without student present, one with... followed by lots of deliberation :)



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**Please pick up your evaluations at the  
registration desk!**

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# MILT Awards (Tues.)

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# Undergraduate Award

**Author: Ishita Solanki**

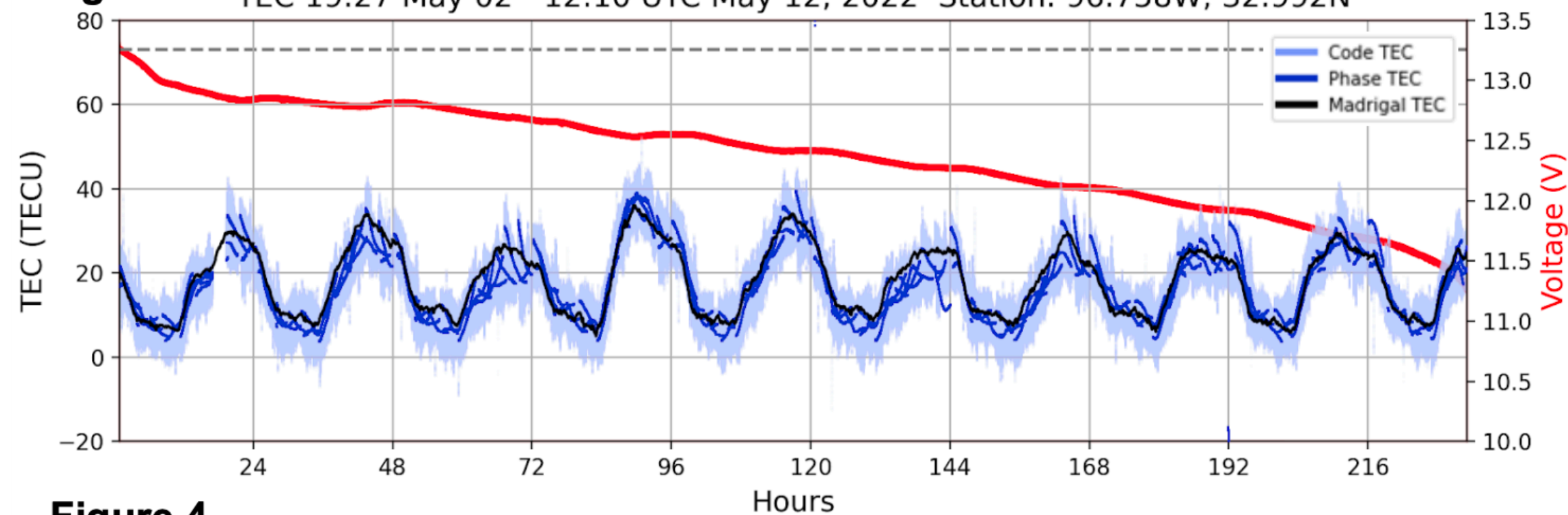
*Title: Autonomous Platform for Distributed Ionospheric Studies and Citizen Science Initiatives*

**Institution: UT Dallas**

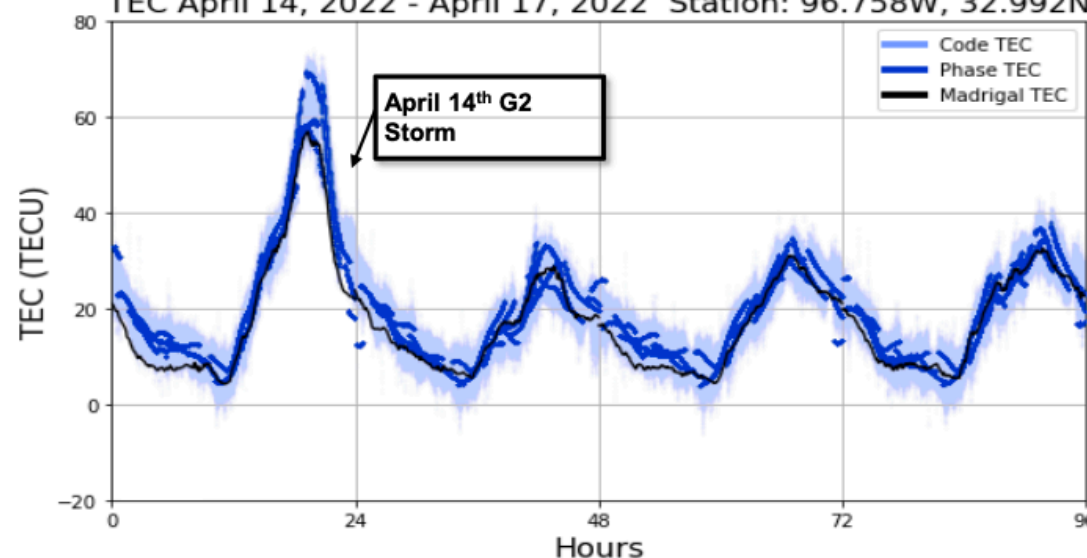
**Poster: EDU-03**



**Figure 3** TEC 19:27 May 02 - 12:10 UTC May 12, 2022 Station: 96.758W, 32.992N



**Figure 4** TEC April 14, 2022 - April 17, 2022 Station: 96.758W, 32.992N



## 4.3 Space Weather Observa

- On April 14, 2022, 16:00-22:00 UTC, an average peak value of ~30 TECU
- This rise in TEC may be linked to a G reported by NOAA that began at 16:4

## 4.4 Communication / Remote Operation

- On average, device transfers 7.4 MB per day (222 MB per month) of data. A 500 MB monthly plan costs ~US\$9.00 USD.
- Currently, we are working on near real-time visualization of GNSS information for educational purposes, **Fig 5**.

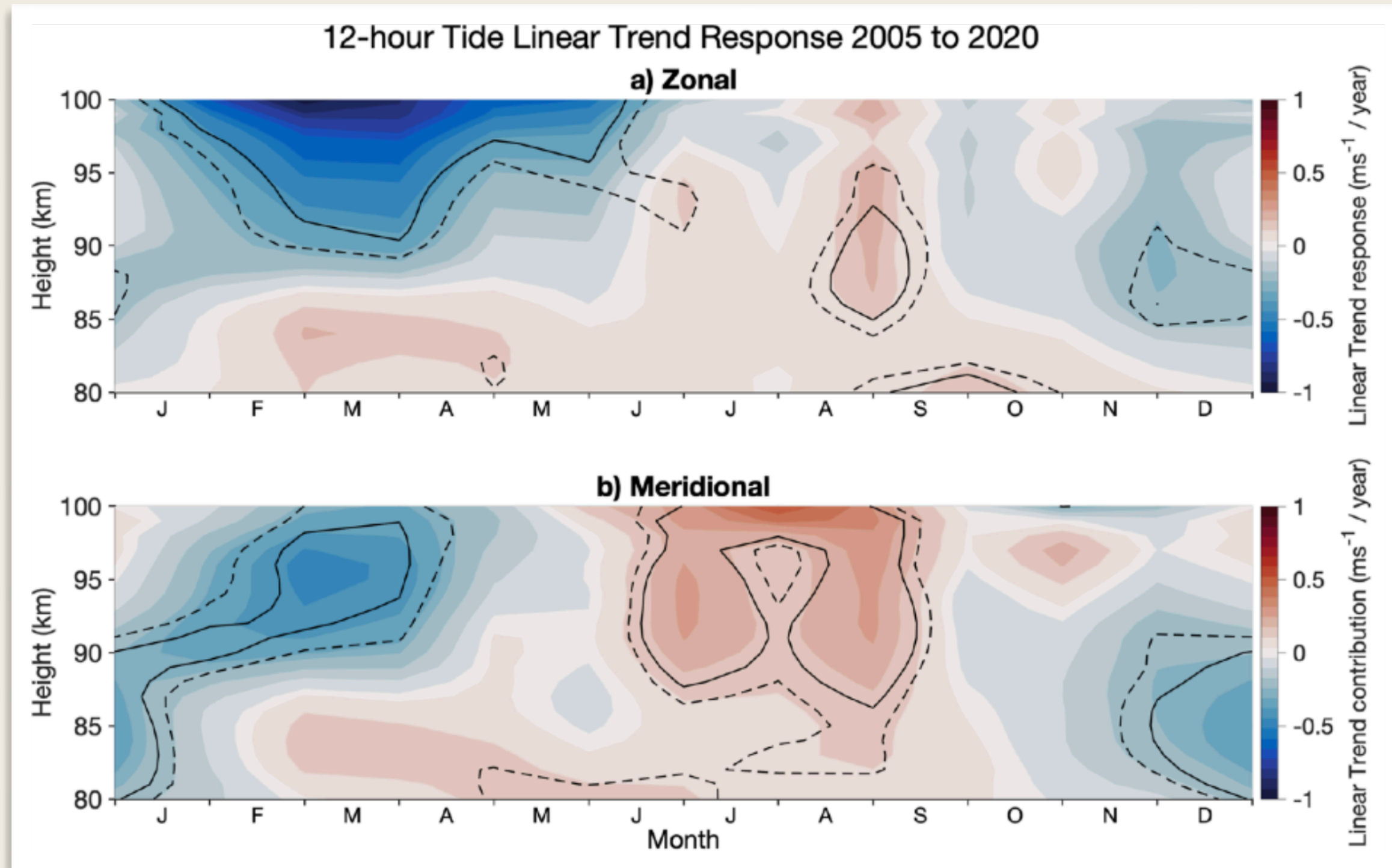
# Honorable Mention

**Author: Shaun Dempsey**

*Title: Interannual variability of the 12-hour tide in the mesosphere and lower thermosphere in 15 years of meteor-radar observations above Rothera*

Institution: U Bath/British Antarctic Survey

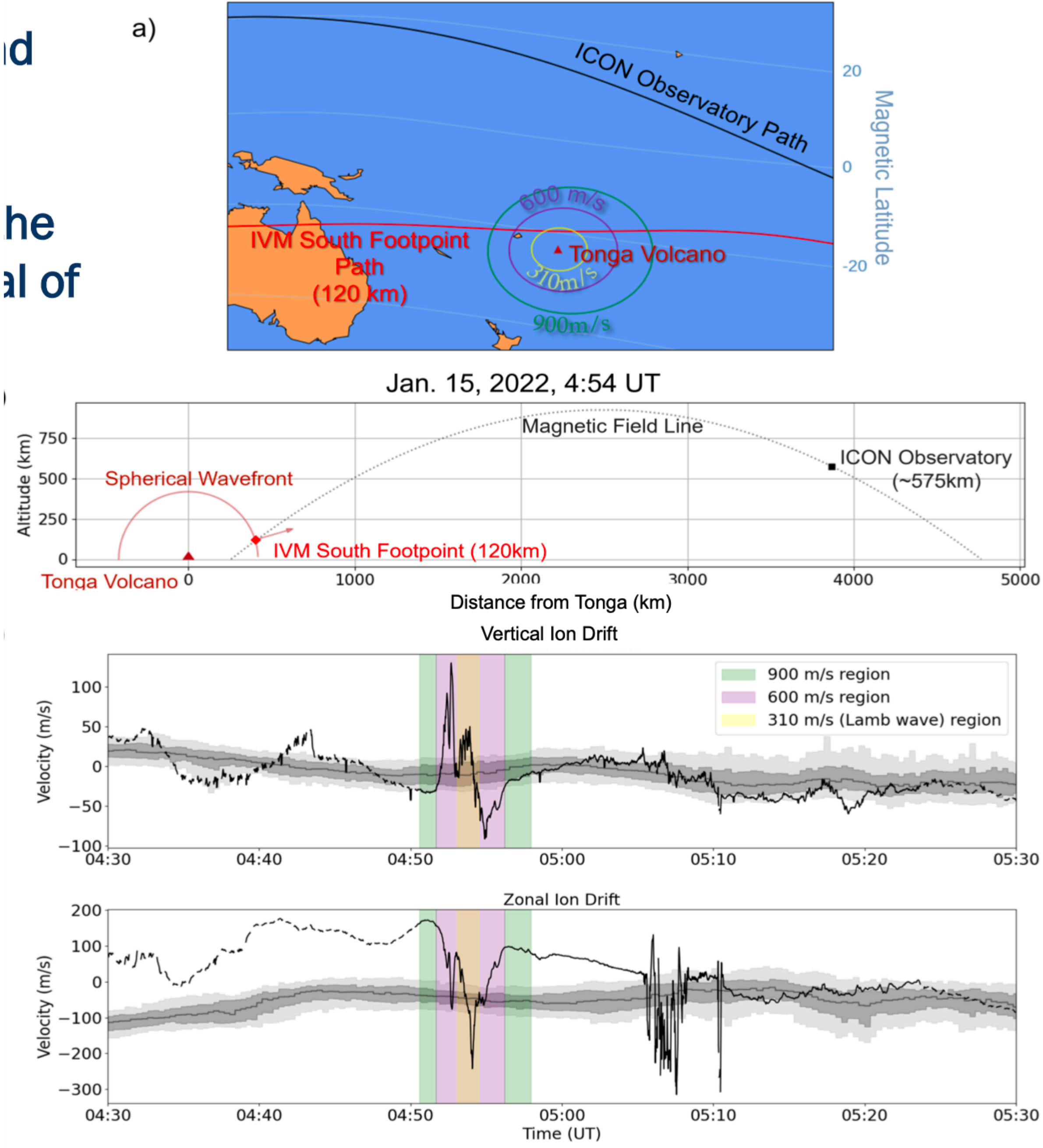
Poster: MLTS-04





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# Second Place

Author: Claire Gasque

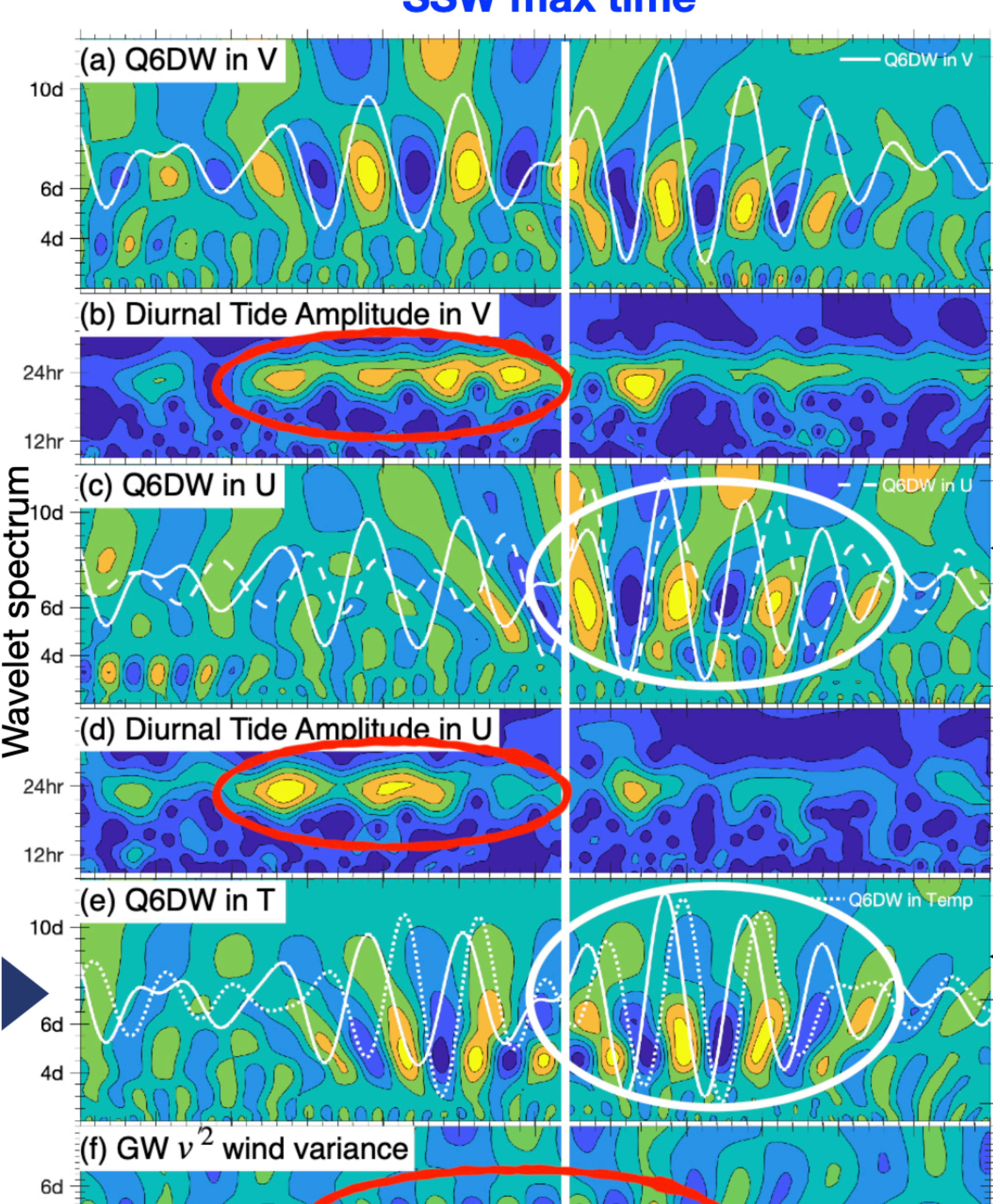
Title: *Volcanic Disruption of the Equatorial Ionosphere: ICON Observations of the Tonga Eruption*

Institution: UC Berkeley/SSL

Poster: COUP-03







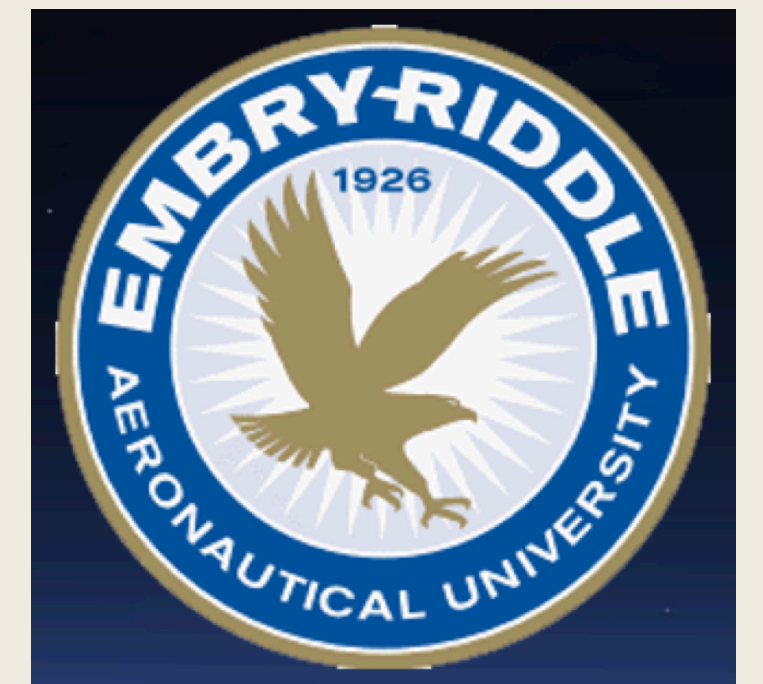
# First Place

Author: Zishun Qiao

Title: *Southern Hemisphere (SH) Midlatitude MLT response to the 2019 SH SSW, revealed by two meteor radar observations and SD-WACCM-X simulations*

Institution: ERAU

Poster: COUP-09





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# IT Awards (Wed.)

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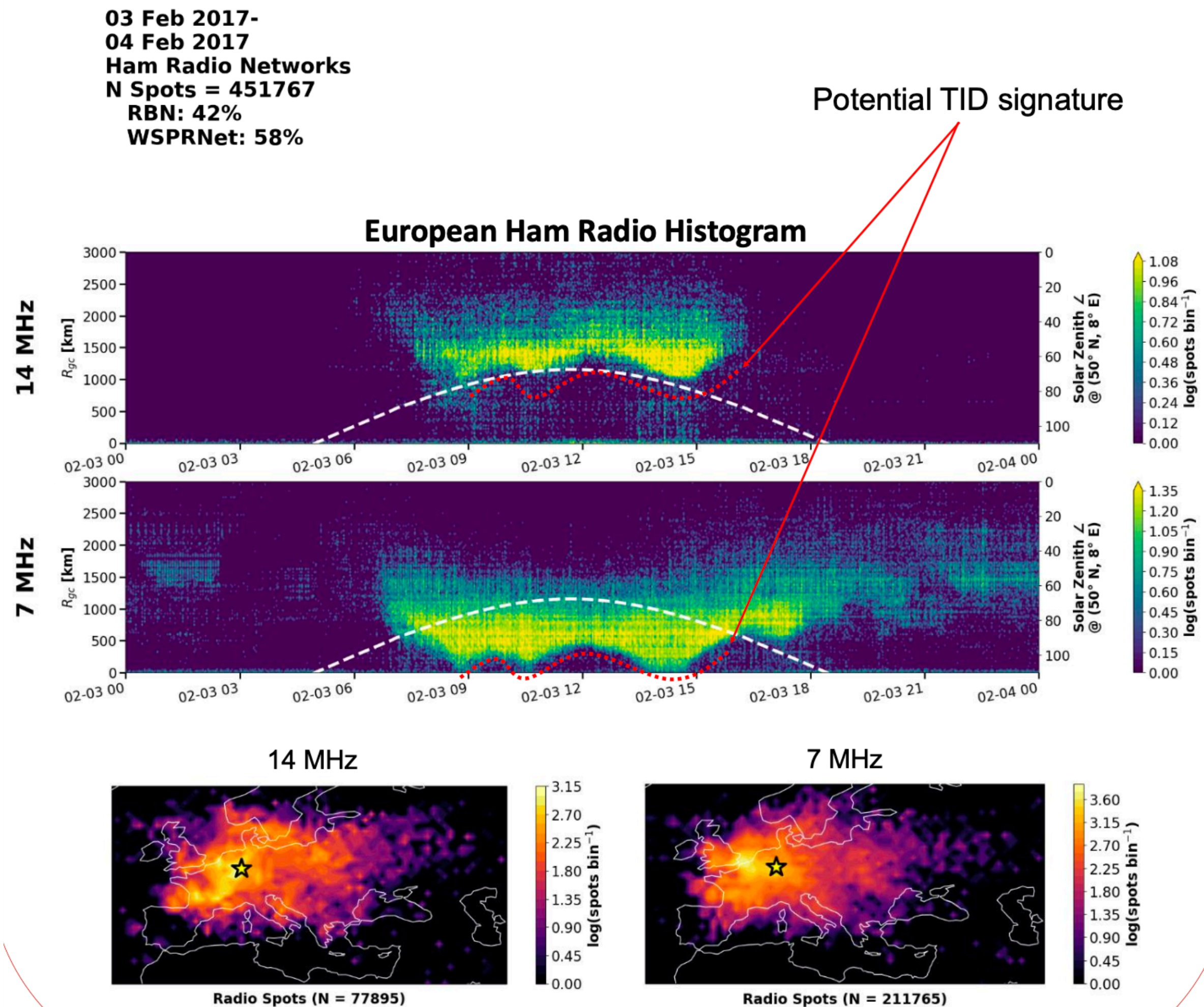
# Undergraduate Award

**Author: Diego Sanchez**

*Title: An Investigation of Traveling Ionospheric Disturbances Detected with Ham Radio Transmissions*

**Institution: NJIT**

**Poster: MITC-17**





# Undergraduate Award

Author: **Ronaldo Rojas**

Title: *Forecasting Spread F at Jicamarca*

Institution: Universidad de Ingeniería y Tecnología

Poster: IRRI-05

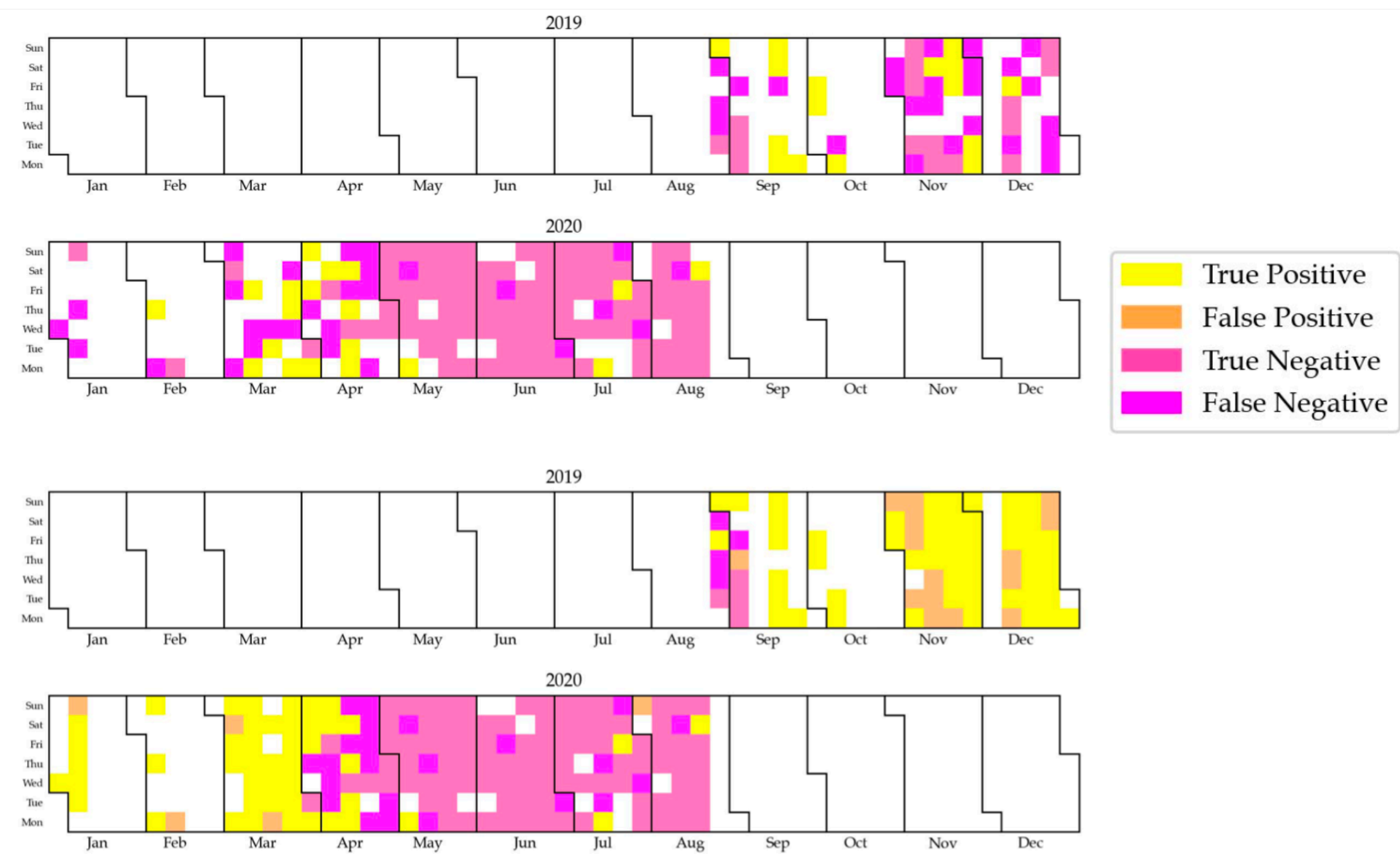


Figure 9. Evaluation of FIRST (top) and our model. (bottom)

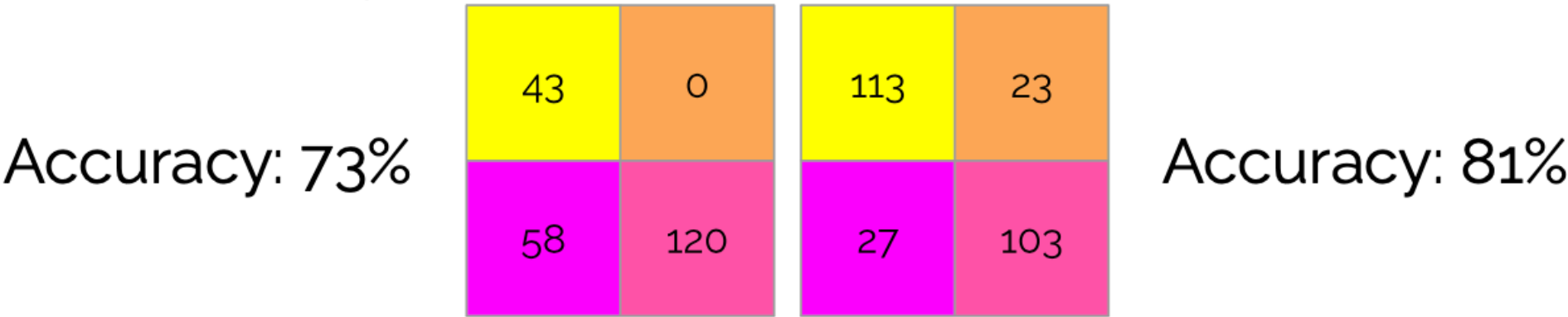


Figure 10. Confusion matrices for FIRST (left) and our model (right).

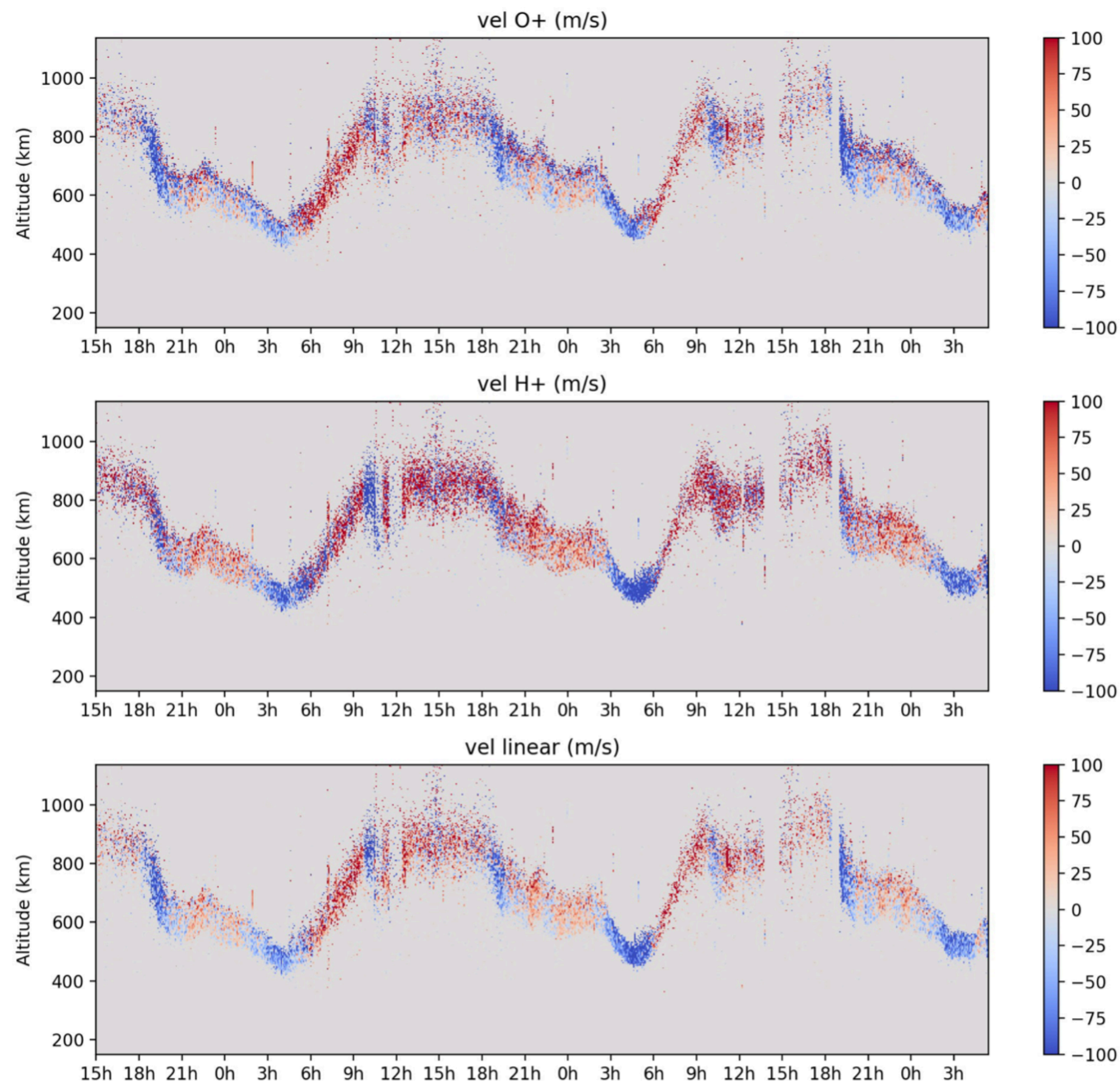
# Honorable Mention

**Author: Binghui Wang**

Title: *Topside F-region O+ and H+ drifts inferred from Arecibo ISR long pulse echoes*

Institution: UIUC

Poster: ITIT-23





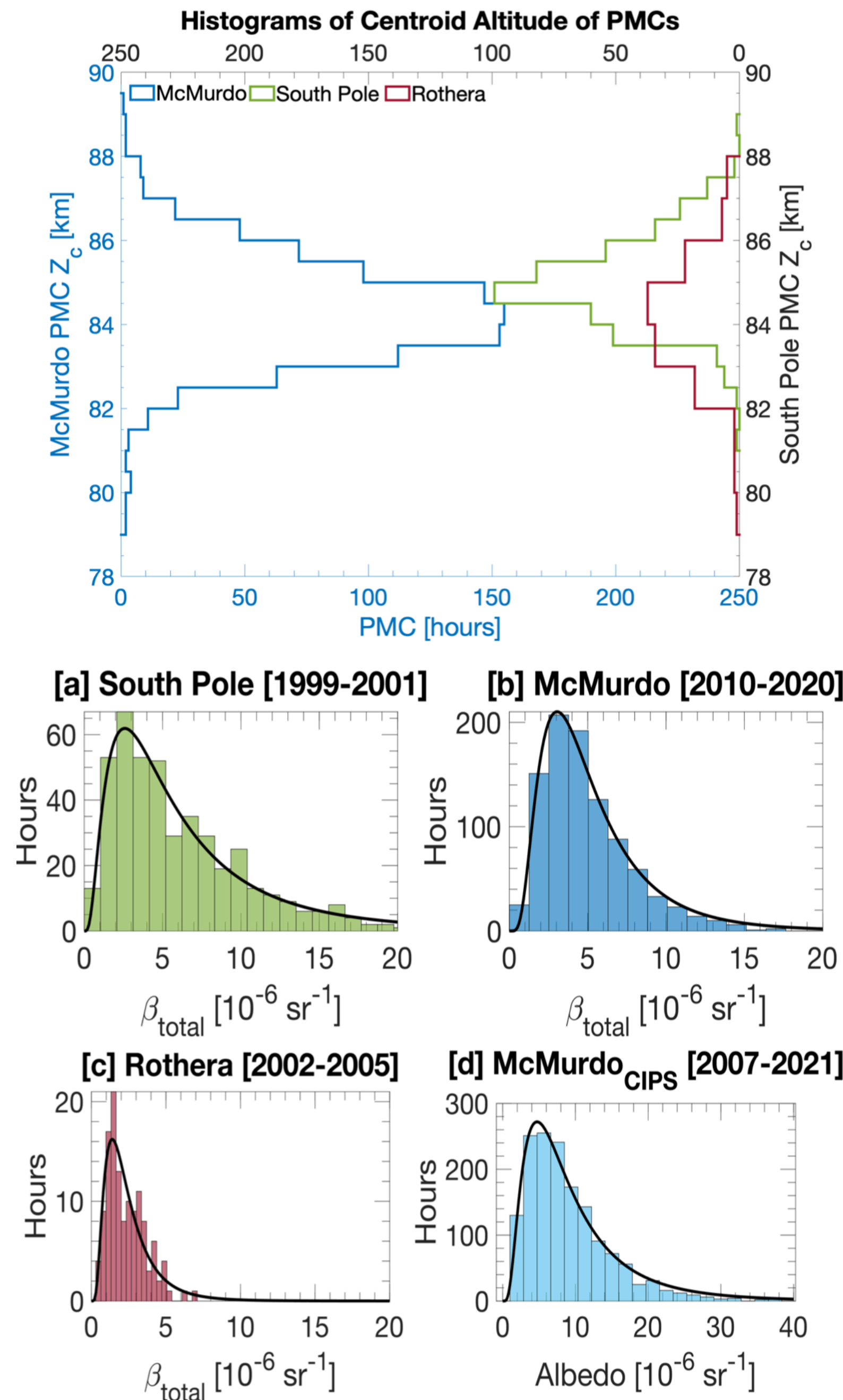
# Second Place

**Author: Arunima Prakash**

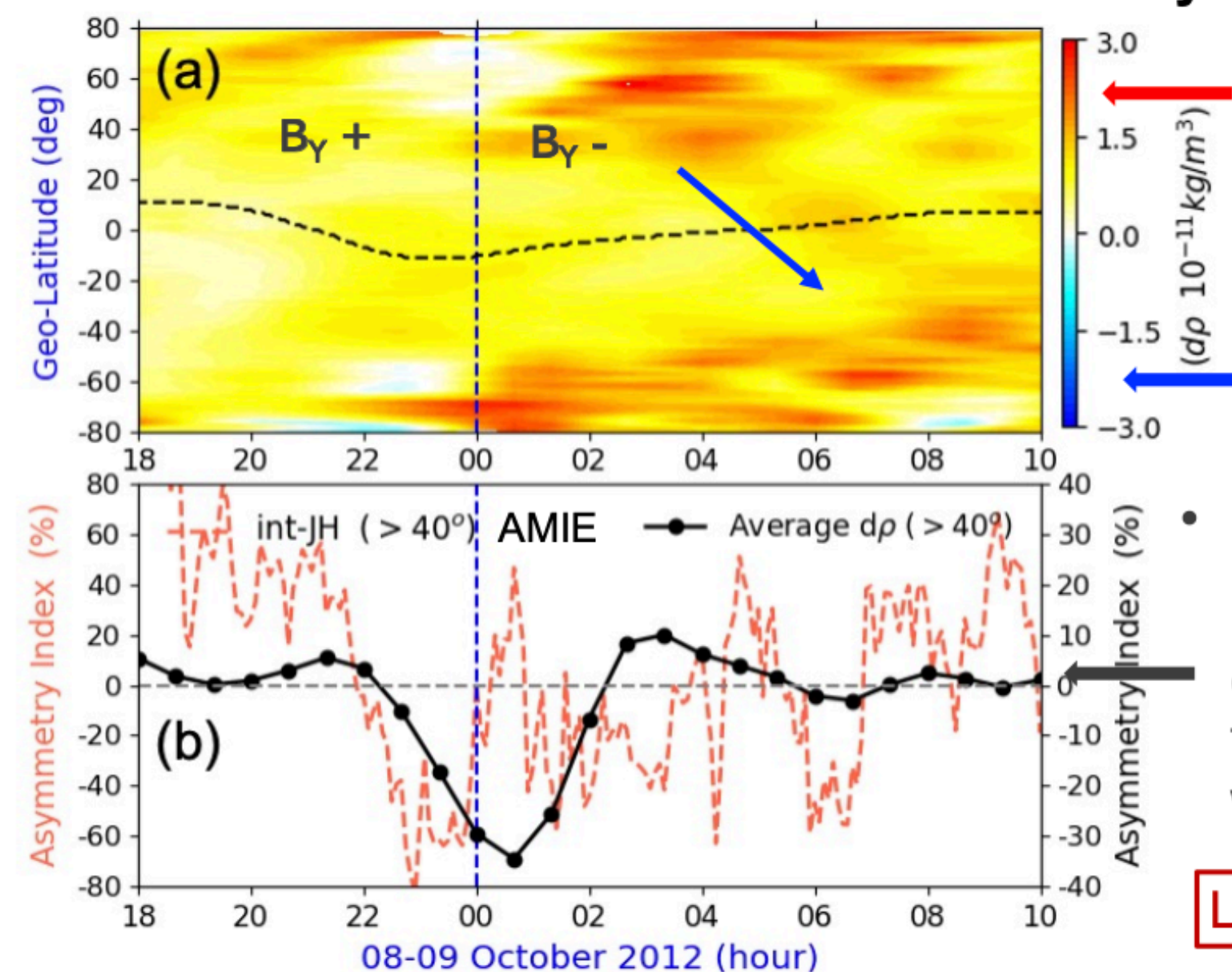
*Title: Interannual and Diurnal Variability of PMCs Using 10 years of Lidar and 14 years of CIPS Observations at McMurdo, Antarctica*

**Institution: CU Boulder**

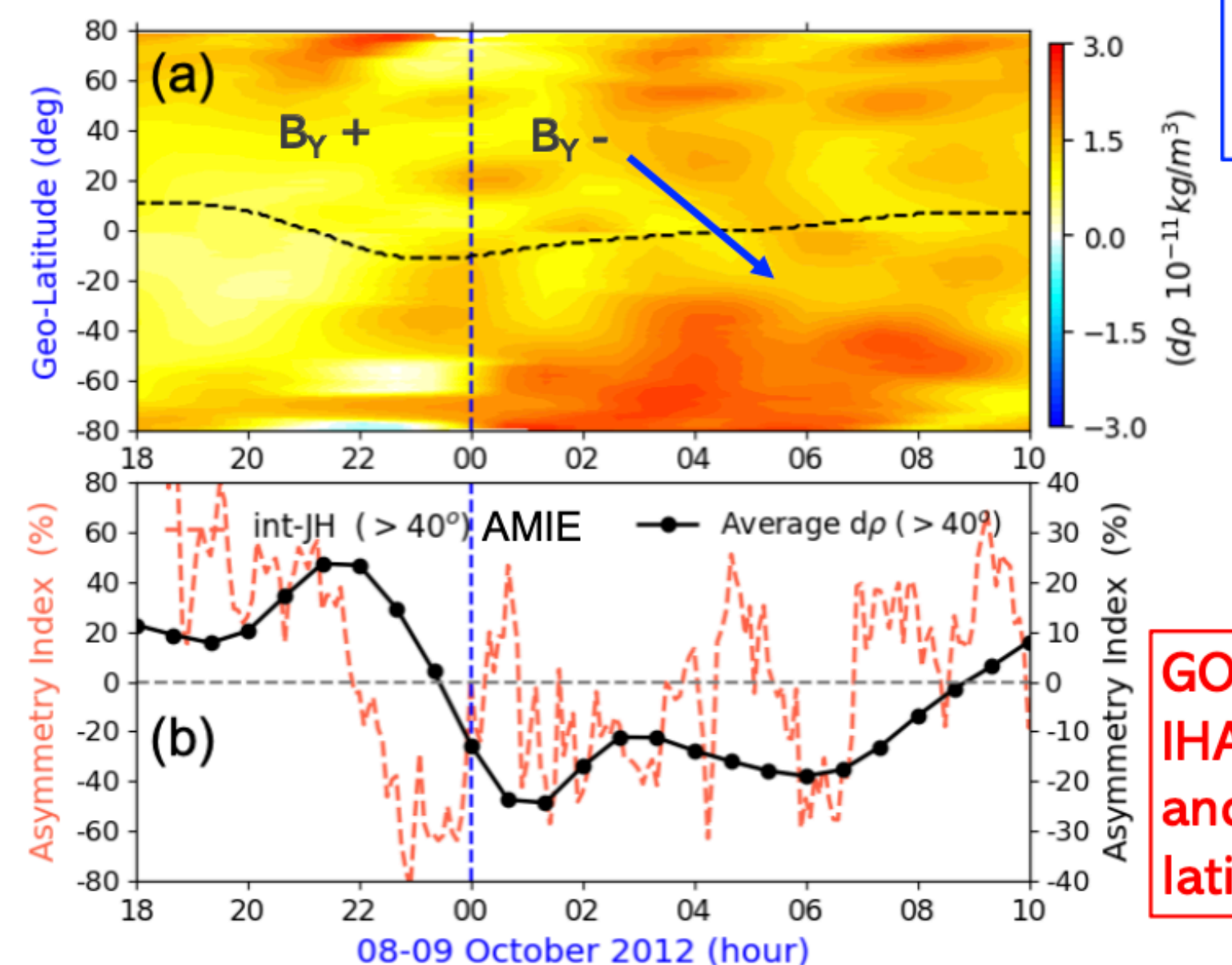
**Poster: POLA-01**



### 3.1 GOCE observed duskside neutral density



### 3.2 GITM simulated duskside $d\rho$



# First Place

**Author: Yu Hong**

Title: *Inter-hemispheric asymmetry of the ion-convection boundary expansion during the 8-10 October 2012 storm*

Institution: UT Arlington

Poster: MITC-07





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# Student Poster Awards

*Tuesday (MLT)*

Zishun Qiao

Claire Gasque

Shaun Dempsey

Ishita Solanki

*Wednesday (IT)*

Yu Hong

Arunima Prakash

Binghui Wang

Diego Sanchez

Ronaldo Rojas

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