

# **Planetary Science and Astrophysics**

## **Report of Contributions**

Contribution ID: 2

Type: **not specified**

## **Session 1: Exoplanet atmospheric study using the transmission spectroscopy technique**

*Thursday, 28 July 2022 09:30 (1 hour)*

This session is completed.

The YouTube video record for Session 1 is now ready. Please follow the link below <https://www.youtube.com/watch?v=QOp> and click “cc” if you need the transcript.

Contribution ID: 3

Type: **not specified**

## **Session 3: Monsoon and aerosol study**

*Friday, 29 July 2022 09:30 (1 hour)*

This session is completed. The video record for the lecture in this session is now available on YouTube. Please click the link <https://www.youtube.com/watch?v=hr6uuat98IU>

Contribution ID: 4

Type: **not specified**

## Session 4: Ionosphere and Equatorial plasma bubble

*Friday, 29 July 2022 11:00 (1 hour)*

In this session, we will learn the basics of ionosphere as well as local disturbances so called “Equatorial plasma bubbles (EPB).” Various instruments to observe such irregularity will be overviewed. In addition, the characteristics, effects and challenges to modern technologies will be highlighted.

This session is completed. The record of lecture on Session 4 is available at the YouTube link: <https://www.youtube.com/watch?v=gzyK-8PMZDk>

**Presenter:** SUPNITHI, Pornchai (King Mongkut’s Institute of Technology Ladkrabang)

Contribution ID: 5

Type: **not specified**

## **Session 2: Spectroscopy and Photometry of Exoplanet Atmospheres Research NETwork (SPEARNET)**

*Thursday, 28 July 2022 11:00 (1 hour)*

This session is completed. Please find YouTube video record at <https://www.youtube.com/watch?v=98TEJ6vJxE4>.

Contribution ID: 6

Type: **not specified**

## **Session 1 Hands-on Activities: TESS transit light curve**

*Thursday, 28 July 2022 13:00 (1h 30m)*

This Session is completed. Please find the YouTube video record via this link <https://www.youtube.com/watch?v=q9Mz4FZY>

Contribution ID: 7

Type: **not specified**

## **Session 5: Introduction of geomagnetic substorm**

*Saturday, 30 July 2022 09:30 (1 hour)*

This session is completed. Please find the video record for the lecture of this session at the YouTube link: <https://www.youtube.com/watch?v=2SW2sRMWyP8>

Contribution ID: 8

Type: **not specified**

## **Session 7: Atmospheric compositions and related space missions**

*Sunday, 31 July 2022 09:30 (1 hour)*

This session is completed. Please see the video record of the lecture in this session via YouTube link: <https://www.youtube.com/watch?v=cqhuTHLewkA>



Contribution ID: 9

Type: **not specified**

## **Session 2 Hands-on Activities: TESS transit light curve**

*Thursday, 28 July 2022 15:00 (1h 30m)*

Contribution ID: **10**

Type: **not specified**

## **Session 6: High latitude electrodynamics: The asymmetric connection to space**

*Saturday, 30 July 2022 13:45 (45 minutes)*

A brief introduction to high latitude electrodynamics, mainly from an ionospheric perspective. I will focus on how pursuing investigations of asymmetries in the geospace system has been a fruitful approach to gain new knowledge of the coupled system.

This session is completed. The video record for this session can be viewed at the YouTube link: <https://www.youtube.com/watch?v=7LaJtSjXM8o>

Contribution ID: 11

Type: **not specified**

## **Session 3 Hands-on Activities: Atmospheric models: Visualizing Atmospheric Forecast Data using Panoply**

*Friday, 29 July 2022 13:00 (1h 30m)*

The participants will have to process model output data given by the TAs (180 GB). A smaller version at 5.7 GB is uploaded here:

<https://drive.google.com/drive/folders/1HKvR-XVKe33vPh-n53xAt2RXAlPzEIF?usp=sharing>

Also in this session, the participants need to download the Panoply software from:

<https://www.giss.nasa.gov/tools/panoply/>

This session is completed. The video record for the Hands-on part 1 is available at the YouTube link <https://www.youtube.com/watch?v=bLHKMXX2q6o>

For the record of Hands-on session Part 2, please follow the YouTube link: [https://www.youtube.com/watch?v=uqFZ1\\_uxnK](https://www.youtube.com/watch?v=uqFZ1_uxnK)

Contribution ID: 12

Type: **not specified**

## **Session 4 Hands-on Activities: Ionosphere and Equatorial plasma bubble: computer analysis**

*Friday, 29 July 2022 15:00 (1h 30m)*

In this session, we will study the characteristics of Slant TEC and Vertical TEC (VTEC) at Chiang-mai GNSS station and compare with the TEC from the IRI model. In addition, we will investigate the Kp index (disturbance to Earth's magnetic field) on those days.

This session is completed. For the video record of the Hands-on activity of this session please find at the link <https://www.youtube.com/watch?v=Yt481zYDne8>

Contribution ID: 13

Type: **not specified**

## **Session 5 Hands-on Activities: CEF and possible on-demand analysis tools e.g., NASA CDAWeb**

*Saturday, 30 July 2022 11:00 (1 hour)*

During the activities, each of us will open both the presentation file and a browser on a computer at the same time so that we can copy and paste the addresses of the websites and the date and time for the plots.

This session is completed. Please also find the video record for the Hands-on lecture for this session at the YouTube link: <https://www.youtube.com/watch?v=mAsqEBxu67M>

Contribution ID: 14

Type: **not specified**

## **Session 6 Hands-on Activities: High-school level outreach projects**

*Saturday, 30 July 2022 15:00 (1h 30m)*

A brief introduction to my own experiences as a researcher engaging in outreach activities in Norway, followed by some example exercises I have used in my outreach activities.

This session is completed. The video for the hands-on lecture for this session can be viewed via YouTube link: <https://www.youtube.com/watch?v=8Qp37rPNRBk>

Contribution ID: 15

Type: **not specified**

## **Session 7 Hands-on Activities: Online resources for atmospheric compositions during geomagnetic substorm**

*Sunday, 31 July 2022 11:00 (1 hour)*

This session is completed. Please see the video record for the lecture during the Hands-on activity in this session via YouTube link: <https://www.youtube.com/watch?v=U6nfHKyu6UA>

Contribution ID: **16**

Type: **not specified**

## Closing Remark

*Sunday, 31 July 2022 13:00 (1h 30m)*