

Announcement of ISEE Symposium International Conference on Heavy Rainfall and Tropical Cyclone in East Asia

The T-PARCII group is pleased to host the international conference on heavy rainfall and tropical cyclone in East Asia with the PRECIP, TAHOPE and KPOP groups.

Purpose of the symposium

Typhoons and heavy rainfalls are common issues in East Asian countries, and it is important to share the latest results of research on these topics for their scientific understanding as well as for disaster prevention. The purpose of this symposium is to summarize and exchange the latest results of research conducted in each country, and to summarize and share plans for the international joint observation campaign, which is planned for May to August 2022 by the United States, Taiwan, South Korea, and Japan. Because of the pandemic of the corona virus, this symposium will be held in virtual (online).

Date and time of meeting

The time of the virtual meeting is as follows in different time zones.

- March 1 and 2, 2022 00:00 am - 04:00 am in UTC
- March 1 and 2, 2022 09:00 am - 13:00 in JST (Japan and Korea Time)
- March 1 and 2, 2022 08:00 am - 12:00 for Taiwan Time
- February 28 and March 1, 2022 17:00 - 21:00 in MST, USA

Program

Day 1 (March 1)

* Time is written in JST (UTC+9 hours)

- 09:00 – 09:20 *Kazuhiisa Tsuboki (Nagoya Univ.)*
Research Plan of the T-PARCII Second Phase
- 09:20 – 09:40 *Ming-Jen Yang (National Taiwan Univ.)*
Research Plan of the TAHOPE
- 09:40 – 10:00 *Michael M. Bell (Colorado State Univ.)*
Observations during the 'PRE'-CIP 2021 and PRECIP 2022 Field Campaigns
- 10:00 – 10:15 *Yunji Zhang (Pennsylvania State Univ.) et al.*
Real-time global and regional convection-permitting forecasts for the PRECIP field campaign
- 10:15 – 10:30 *Keunok Lee (Univ. of La Reunion) et al.*
Research plan of the MICA project
- 10:30 – 10:45 *Shih-Hao Su (Chinese Culture Univ.)*

Review of Yilan Experiment of Severe Rainfall in 2020 (YESR2020)/TAHOPE2020-
Winter and briefing of the machine learning based data calibration system of Storm tracker
mini-radiosonde

10:45 – 11:00 *Po-Hsiung Lin (National Taiwan Univ.)*

The Development of NTU Mini Radiosonde and Its Possible Applications in Atmospheric
Sciences

11:00 – 11:15 break

11:15 – 11:30 *Tsz-Kin (Eric) Lai (Imperial College London) et al.*

Long-term effect of barotropic instability across the moat in doubleeyewall tropical cyclone-
like vortices

11:30 – 11:45 *Tianqi Zuo (Univ. Hawaii, Manoa) et al.*

Extreme rainfall in Taiwan: A rain gauge and linear model investigation

11:45 – 12:00 *Hiroyuki Yamada (Univ. Ryukyus) et al.*

Warm-core structure of three intense typhoons as observed through the T-PARCII aircraft
reconnaissance

12:00 – 12:15 *Kosuke Ito (Univ. Ryukyus) et al.*

Analysis and forecast of tropical cyclones during the T-PARCII project

12:15 – 12:30 *Soichiro Hirano (Univ. Ryukyus) et al.*

Deep Eye Clouds in Tropical Cyclone Trami (2018) during T-PARCII Dropsonde
Observations

12:30 – 12:45 *Chung-Chieh Wang (National Taiwan Normal Univ.)*

Ensemble sensitivity analysis and predictability of the extreme rainfall event over northern
Taiwan on 2 June 2017

12:45 – 13:00 *Chung-Chieh Wang (National Taiwan Normal Univ.)*

Cloud-resolving time-lagged rainfall ensemble forecasts for typhoons in Taiwan: Examples
of Saola (2012), Soulik (2013), and Soudelor (2015)

13:00 END

Day 2 (March 2)

* Time is written in JST (UTC+9 hours)

09:00 – 09:15 *Kao-Shen Chung (National Central Univ.)*

Improving the heavy rainfall forecast by assimilating retrieved moisture and radar data:
Performance and validation with real cases

09:15 – 09:30 *Clment Soufflet (Univ. of La Reunion) et al.*

- High-resolution Simulation of tropical cyclones using ocean-atmosphere coupled system
- 09:30 – 09:45 *Takeshi Horinouchi (Hokkaido Univ.) et al.*
Stationary and transient asymmetric features in tropical cyclone eye, wavenumber-one instability, and eye-shape maintenance: Case study for Typhoon Haishen (2020) with rapid-scan high-resolution atmospheric motion vectors
- 09:45 – 10:00 *Satoki Tsujino (Meteorological Research Institute, JMA) et al.*
Inner-core wind estimation in a concentric eyewall replacement of Typhoon Trami (2018) based on the Himawari-8 satellite
- 10:00 – 10:15 *Hung-Chi Kuo (National Taiwan Univ.)*
A study on the long-lived concentric eyewalls in tropical cyclones
- 10:15 – 10:30 *Angela K. Rowe (Univ. Wisconsin-Madison) et al.*
The influence of terrain on precipitation intensity and duration during the June 2017 Taiwan heavy rain event
- 10:30 – 10:45 *Jennifer DeHart (Colorado State Univ.) et al.*
Understanding the processes responsible for heavy rainfall in two Mei-yu front cases
- 10:45 – 11:00 *Yi-Leng Chen (Univ. Hawaii, Manoa) et al.*
An Overview of Low-Level Jets (LLJs) and Their Roles on Heavy Rainfall Over the Taiwan Area During the Early Summer Rainy Season
- 11:00 – 11:15 break
- 11:15 – 11:30 *Dong-In Lee (Pukyong National Univ.)*
Radar Precipitation Analysis of Four Typhoons (Jangmi, Bavi, Maysak and Haishen, 2020): Part 1
- 11:30 – 11:45 *Jisun Lee (Pukyong National Univ.)*
Radar wind field analyses of Four Typhoons (Jangmi, Bavi, Maysak and Haishen, 2020): Part 2
- 11:45 – 12:00 *Mi-Young Kang (Pukyong National Univ.)*
The analysis of lightning characteristics using LINET and S-band Polarimetric radar in Korea
- 12:00 – 12:15 *Nobuhiro Takahashi (Nagoya Univ.) et al.*
Simulation of airborne dual-polarization phased array radar observation of a typhoon
- 12:15 – 12:30 *Wei-Yu Chang (National Central Univ.)*
Investigating the Lagrangian evolution of microphysical characteristics of convective precipitation systems using dual-polarimetric radar
- 12:30 – 12:45 *Pay-Liam Lin (National Central Univ.)*

Raindrop size distribution characteristics of Western Pacific tropical cyclones measured in the Palau Islands

12:45 – 13:00 *Gyuwon Lee ((Kyungpook National Univ.)*

TBD

13:00 END

Registration

Zoom access point will be delivered to all the registered people before the meeting. Please access the registration site as follows and complete your registration until noon on Feb. 28.

https://docs.google.com/forms/d/e/1FAIpQLSdUrrKp3n_A1hZJMcRRD7T2JnSlOj519G8IzrSbEd_detHJZg/viewform?vc=0&c=0&w=1&flr=0&usp=mail_form_link

Contact Person

Taro Shinoda,

Institute for Space-Earth Environmental Research, Nagoya University, Japan

shinoda[at]rain.isee.nagoya-u.ac.jp