

**NTU-KU Joint Workshop on Severe Weather and Climate Impacts in East Asia
21-23 November 2022**

Agenda

Venue : Room B105 & A100, Department of Atmospheric Sciences, National Taiwan University

21 November 2022 Monday (Day 1)	
09:40 ~10:00	Registration (Room B105)
10:00 ~ 10:30	Welcome Session Chair: Profs. Cheng-Ku Yu and Tetsuya Takemi (Room B105)
	<ul style="list-style-type: none"> - Opening Remarks: Prof. Chun-Chieh Wu, Dean of the College of Science, NTU Prof. Shigeo Yoden, Kyoto University (video message) - Introduction to Faculty and Students - Group Photo
Session 1	Climate and Large-scale Circulations Chair: Prof. Min-Hui Lo (Room B105)
10:30 ~ 10:55	Downscaling the impacts of climate change on extreme weather in complex topography. Prof. Tetsuya Takemi*, Disaster Prevention Research Institute, Kyoto University.
10:55~ 11:20	What is the equivalent depth of the Pekeris mode? Prof. Keiichi Ishioka*, Division of Earth and Planetary Sciences, Graduate School of Science, Kyoto University. (online)
11:20~11:35	Report on coding a mechanistic general circulation model from scratch. Shun Fujita*, Division of Earth and Planetary Sciences, Graduate School of Science, Kyoto University.
11:35~12:00	Linking Arctic Sea-ice Loss to Midlatitude Surface Climate via Stratosphere-troposphere Coupling. Prof. Yu-Chiao Liang*, Young-Oh Kwon, Claude Frankignoul, Guillaume Gastineau, Karen L. Smith, Lorenzo M. Polvani, Lantao Sun, Yannick Peings, Clara Deser, Rounan Zhang, and James Screen, Department of Atmospheric Sciences, National Taiwan University.
12:00~13:30	Lunch Time (Room B105)
Session 2.1	Observations, Forecasting and Microphysics Chair: Prof. Tetsuya Takemi (Room B105)
13:30~13:55	Observation plan of ice particles in precipitating stratiform cloud. Prof. Shoichi Shige*, Division of Earth and Planetary Sciences, Graduate School of Science, Kyoto University
13:55~14:20	Skillful forecasts of springtime CONUS tornado activity up to a year in advance. Prof. Kai-chih Tseng*, Nathaniel C. Johnson, Andrew T. Wittenberg, Thomas L. Delworth, Hosmay Lopez, Dongmin Kim, Arun Kumar, Hui Wang, Feiyu Lu, William Cooke, Anthony J. Rosati, Liping Zhang, Colleen McHugh, Xiaosong Yang, Matthew Harrison, Fanrong Zeng, Hiroyuki Murakami, Mitchell Bushuk and Liwei Jia, Department of Atmospheric Sciences, National Taiwan University.

14:20~14:45	Typhoon predictions with large-size ensemble simulations and hybrid data assimilation. <i>Dr. Pin-Ying Wu[*], Takuya Kawabata, and Le Duc, Meteorological Research Institute, Japan Meteorological Agency.</i>
14:45~15:00	Narrowing the blind zone of the GPM dual-frequency precipitation radar to improve shallow precipitation detection in mountainous areas. <i>Riku Shimizu[*], Shoichi Shige, Toshio Iguchi, and Cheng-Ku Yu, Division of Earth and Planetary Sciences, Graduate School of Science, Kyoto University.</i>
15:00~15:30	Coffee/Tea Break
Session 2.2	Observations, Forecasting and Microphysics Chair: Prof. Po-Hsiung Lin (Room A100)
15:30~15:55	Taiwan-Area Heavy rain Observation and Prediction Experiment (TAHOPE). <i>Prof. Ming-Jen Yang[*], Ming-Dean Cheng, Ching-Yuang Huang, Pay-Liam Lin, Po-Hsiung Lin, Cheng-Shang Lee, Chung-Chieh Wang, Ching-Hwang Liu, Pao-Liang Chang, Jou-Ping Hou, Kao-Shen Chung, Wei-Yu Chang, and Ping-Fang Lin, Department of Atmospheric Sciences, National Taiwan University.</i>
15:55~16:10	Proposed function for raindrop size distribution in a mixed convective and stratiform precipitating system as revealed by field observations. <i>Megumi Okazaki[*], Satoru Oishi, Yasuhiro Awata, Tomoro Yanase, and Tetsuya Takemi. Division of Earth and Planetary Sciences, Graduate School of Science, Kyoto University.</i>
16:10~16:25	Characteristics of hail-producing convection in Bandung Basin, Indonesia as derived from Himawari-8 high resolution data and X-band radar data. <i>H. Ikeda[*], S. Shige, K. Aonashi, H. Hirose, A. Hamada, N. J. Trilaksono, R. Yanti, D. S. Medyani, and P. Y. Kombara, Division of Earth and Planetary Sciences, Graduate School of Science, Kyoto University.</i>
16:30~17:30	NTU Campus Tour
18:00~	Banquet at Taidatable (曉鹿鳴樓)
22 November 2022 Tuesday (Day 2)	
Session 3.1	Tropical Cyclones and Convective Systems Chair: Prof. Shoichi Shige (Room B105)
10:15 ~ 10:40	Typhoon Rapid Intensification with 200 PVU Convective Potential Vorticity Tower in Numerically Simulated Supertyphoon Haiyan (2013). <i>Prof. Hung-Chi Kuo[*] and Satoki Tsujino, Department of Atmospheric Sciences, National Taiwan University.</i>
10:40~ 11:05	A Tale of Two Rapidly-Intensifying Super Typhoons: Hagibis (2019) and Haiyan (2013). <i>Prof. I.-I. Lin[*], Robert F. Rogers, Hsiao-Ching Huang, Yi-Chun Liao, Derrick Herndon, Jin-Yi Yu, Ya-Ting Chang, Jun A. Zhang, Christina M. Patricola, Iam-Fei Pun, and Chun-Chi Lien, Department of Atmospheric Sciences, National Taiwan University.</i>
11:05~11:20	Orographic Precipitation Associated with Typhoon Chanthu (2021) Observed by a Polarimetric Doppler Radar. <i>Tsubaki Hosokawa[*] and Cheng-Ku Yu, Department of</i>

11:20~11:35	<i>Atmospheric Sciences, National Taiwan University.</i> Subtropical cyclone controlled by a cut-off low - Case study: Tropical Storm Nepartak (2021). <i>Kenta Irie* and Tetsuya Takemi, Division of Earth and Planetary Sciences, Graduate School of Science, Kyoto University. (online)</i>
12:00~13:30	Lunch Time (Room B105)
Session 3.2	Tropical Cyclones and Convective Systems Chair: Prof. Wei-Ting Chen (Room B105)
13:30~13:45	Orographic Precipitation over Da-Tun Mountain Associated with Typhoon Saola(2012). <i>Ming-Jen Hsu*, Cheng-Ku Yu, and Lin-Wen Cheng, Department of Atmospheric Sciences, National Taiwan University.</i>
13:45~14:00	The Multi-scale Interactions between the Long-lived Convective Systems and the Northwest Pacific Monsoon Trough: Satellite Observation Perspectives. <i>Shao-Yu Tseng*, Wei-Ting Chen, Department of Atmospheric Sciences, National Taiwan University.</i>
14:00~14:15	The Role of Convection in a Minimal Model of QBO-like Oscillation. <i>Tzung-Yu Tsai* and Chien-Ming Wu, Department of Atmospheric Sciences, National Taiwan University.</i>
14:15~14:30	Building a Climatological Model for Typhoon Precipitation Forecast Over Northern Taiwan Based on Radar-Derived Rainfall. <i>Wei-Chiang Lun*, Cheng-Ku Yu, Lin-Wen Cheng, Department of Atmospheric Sciences, National Taiwan Normal University.</i>
Session 4.1	Diurnal and land effects Chair: Prof. Yen-Ting Huang (Room B105)
14:30~14:45	Diurnal Cycle of Convective Activity and Environmental Conditions over Yangtze-Huai River Valley during 4-9 July 2020. <i>Ling Tong*, Tetsuya Takemi, Division of Earth and Planetary Sciences, Graduate School of Science, Kyoto University. (online)</i>
14:45~15:00	Remote response of Maritime Continent's deforestation to the Northern Pacific during the Winter. <i>He-Ming Xiao*, Department of Atmospheric Sciences, National Taiwan University.</i>
15:00~15:15	Control of low-level wind on the diurnal cycle of coastal precipitation. <i>Shunsuke Aoki*, Shoichi Shige, Division of Earth and Planetary Sciences, Graduate School of Science, Kyoto University.</i>
15:15~15:30	Orographic Locking of Diurnal Convection in Taiwan: Deep-inflow Mixing Features. <i>Yu-Hung Chang*, Wei-Ting Chen, Chien-Ming Wu, Yi-Hung Kuo, and J. David Neelin, Department of Atmospheric Sciences, National Taiwan University.</i>
15:30~16:00	Coffee/Tea Break
Session 4.2	Diurnal and land effects Chair: Prof. Chien-Ming Wu (Room B105)
16:00~16:15	Mean-states Dependence of Deforestation Induced Precipitation Changes in the Maritime Continent. <i>Chun-Lien Chiang*, Ting-Hui Lee, and Min-Hui Lo, Department of Atmospheric Sciences, National Taiwan University.</i>

16:15~16:30	Uniqueness of Relative Humidity in Cloud Forest Areas in Eastern Taiwan. <i>Tzu-Ying Yang* and Min-Hui Lo, Department of Atmospheric Sciences, National Taiwan University.</i>
16:30~16:45	Contrasting Responses of Surface Heat Fluxes to Tropical Deforestation. <i>Hung-Chen Chen*and Min-Hui Lo, Department of Atmospheric Sciences, National Taiwan University.</i>
16:45~17:00	Turbulence Observation. <i>Chen-Wei Chung*, Po-Hsiung Lin, and Yong-Ren Lin, Department of Atmospheric Sciences, National Taiwan University.</i>
23 November 2022 Wednesday (Day 3)	
9:30~17:30	Free discussion among the attendees and observational site survey