

The First NCU-RIKEN Joint Workshop on Data Assimilation for Severe Weather Prediction

Date: 29 February - 01 March 2024

Venue: South Garden

Time	Day 1 (2/29, Thu.)	
09:30~10:00	Registration at South Garden	
10:00~10:15	Joint Opening Ceremony	NCU President: Prof. Jing-Yan Jou Associate Dean: Prof. Yu-Chieng Liou Department Chair: Prof. Shu-Chih Yang
10:15~10:30	Opening Sessions	Dr. Takemasa Miyoshi
10:30~10:45	Group Photo & Coffee Break	
Radar Data Assimilation (I)		Session chairs: Prof. Yu-Chieng Liou, NCU, Taiwan Dr. James Taylor, RIKEN, Japan
10:45~11:10	Prof. Yu-Chieng Liou “A brief introduction of NCU Radar Meteorology Laboratory” “Research on radar data application”	
11:10~11:35	Dr. James Taylor “Precipitation forecasting with the SCALE-LETKF using phased array radar observations”	
11:35~12:00	Prof. Kao-Shen Chung “Impact of Assimilating Radar Refractivity with Radial Wind and Reflectivity in the Context of Ensemble Kalman Filter”	
12:00~13:20	Lunch Break	
Radar Data Assimilation (II)		Session chairs: Prof. Kao-Shen Chung, NCU, Taiwan Dr. Michael Goodliff, RIKEN, Japan
13:20~13:45	Dr. Michael Goodliff “Integrating Dual Precipitation Radar Data into the NICAM-LETKF System for Improved Forecasting”	
13:45~14:10	Prof. Shu-Chih Yang “Recent developments and applications with the WRF-based high-resolution ensemble data assimilation”	
14:10~14:35	Dr. Kuan-Jen Lin “Improving Analysis and Prediction of Tropical Cyclones by Assimilating Radar and GNSS-R Wind Observations”	
14:35~15:00	Dr. Chieh-Ying Ke “Assimilating pseudo-temperature and water vapor with radar observations in the context of ensemble Kalman filter: A case study of frontal system”	

15:00~15:20	Coffee Break
Data Assimilation Methodology Session chairs: Dr. Chih-Chien Chang, NCU, Taiwan Dr. Shun Ohishi, RIKEN, Japan	
15:20~15:45	Dr. Guo-Yuan Lien “Development of surface data assimilation in a convective-scale data assimilation system at CWA”
15:45~16:10	Dr. Shun Ohishi “LETKF-based Ocean Research Analysis (LORA): A new ensemble ocean analysis dataset”
16:10~16:35	Dr. Chih-Chien Chang “Hybrid Gain Data Assimilation in the Taiwan Global Forecast System (TGFS)”
16:35~17:00	Dr. Rakesh Teja Konduru “Adaptive Observation Error Inflation with the Assimilation of High-Frequency Satellite Observations under an OSSE Framework with NICAM-LETKF”
17:10~19:30	Welcome Banquet

Time	Day 2 (3/1, Fri.)
09:30~10:00	Registration at South Garden
Satellite Data Assimilation Session chairs: Prof. Ching-Yuang Huang, NCU, Taiwan Dr. Jianyu Liang, RIKEN, Japan	
10:10~10:35	Prof. Ching-Yuang Huang “Improvement on Typhoon Predictions with FORMOSAT-7/COSMIC-2 Radio Occultation Data”
10:35~11:00	Dr. Jianyu Liang "Developing Observation Operator for Satellite Radiance Data Assimilation Using Machine Learning" “Analyzing the Instabilities in the Venus Atmosphere Using Bred Vectors"
11:00~11:25	Dr. Shu-Ya Chen “The Cyclogenesis and Typhoon Predictions with the GNSS Radio Occultation Data Assimilation”
11:25~11:50	Dr. Chi-Yen Lin “The application of ionospheric data assimilation in space weather research”
11:50~13:20	Lunch Break

Observations and Model Analysis (I)		Session chairs: Prof. Wei-Yu Chang, NCU, Taiwan Dr. Shun Ohishi, RIKEN, Japan
13:20~13:45	Prof. Pay-Liam Lin “Analysis and Simulations of a Heavy Rainfall Event Associated with the Passage of a Shallow Front Over Northern Taiwan”	
13:45~14:10	Dr. Arata Amemiya “The development and applications of the SCALE-LETKF system”	
14:10~14:35	MS. Yi-Ju Lee “Development of the PM2.5 forecasting models in Taiwan through CMAQ model and Convolutional Neural Networks (CNN) algorithms”	
14:35~14:55	Coffee Break	
Observations and Model Analysis (II)		Session chairs: Prof. Pay-Liam Lin, NCU, Taiwan Dr. Arata Amemiya, RIKEN, Japan
14:55~15:20	Dr. Shun Ohishi “Including cross correlations between the forecast and observation errors in the ensemble Kalman filter”	
15:20~15:45	Prof. Wei-Yu Chang “Retrieving the Liquid Water Content and Radar Estimated Diameter of Rain Using Collocated X- and K-band Radars: OSSE and Real Case Study”	
15:45~16:20	Discussion & Concluding Remarks	
16:20~17:00	NCU Campus Tour	

Last edited time: 2024/02/27