

The First NCU-KU-OU Joint Workshop on Meso-to-Small Scale Modeling, Observation, and Prediction

Date: 3-6 March 2025

Venue: Science Building II, Teaching & Research Building

Last edited: 24 February 2025

Day 1 (Monday, 3 March 2025)

📍 Science Building II, Room 713

Session/Chair	Time	Speaker/Title
Registration	14:00~14:30	-
Keynote Speech Chair: Prof. Shu-Chih Yang (NCU) Prof. Kosei Yamaguchi (KU)	14:30~15:30	Prof. Eiichi Nakakita (KU) <i>“Early Detection of Baby-Rain-Cell aloft in a Severe Storm and Risk Projection for Urban Flash Flood / Climate Change Impact on Water-Related Disasters and Adaptation in Japan”</i>
Coffee Break	15:30~15:50	-
Elite Forum	15:50~16:30	<i>“Extreme Weather Prediction and Risk Management under Climate Change: Experiences in Taiwan, Japan, and U.S.”</i>
Honorary Dinner for Prof. Eiichi Nakakita	17:30~19:30	-

Day 2 (Tuesday, 4 March 2025)

📍 Teaching & Research Building, Lo Chia-Luen Hall

Session/Chair	Time	Speaker/Title
Registration	08:40~09:10	-
Joint Opening Ceremony	09:10~09:40	-
Group Photo and Coffee Break	09:40~10:00	-
Keynote Speech Chair: Prof. Shu-Chih Yang (NCU)	10:00~10:30	Prof. Tian-You Yu (OU) <i>“Assessing the impact of scanning strategies on the characterization of downburst and its precursors with all-digital phased array radar”</i>
Coffee Break	10:30~10:50	-
Numerical Modeling and Analysis Chair: Prof. Tetsuya Takemi (KU) Prof. Pay-Liam Lin (NCU)	10:50~11:10	Prof. Tetsuya Takemi (KU) <i>“Mesoscale and LES modeling of Turbulent Heat Transfer and Thunderstorm Generation in Urban Districts”</i>
	11:10~11:30	Prof. Pay-Liam Lin (NCU) <i>“Characteristics of Low Level Jets and Their Relationship with Heavy Rainfall in Nearby Area of Taiwan”</i>
	11:30~11:50	Prof. Seika Tanji (KU) <i>“A relationship between upward heat transport and building arrangement in urban districts of Osaka as revealed from large-eddy simulations”</i>
	11:50~12:10	Dr. Kazuya Takami (KU) <i>“Radar Observation and LES Model Study of Mountain Precipitation in Winter Season”</i>
Lunch Break	12:10~13:30	📍 Teaching & Research Building, 3rd Floor, Future Research Space
Advanced Observations (I) Chair: Prof. Wei-Yu Chang (NCU) Prof. David Schwartzman-Cohenca (OU)	13:30~13:50	Prof. David Schwartzman-Cohenca (OU) <i>“Next-Generation Weather Observations with the Fully Digital Horus Phased Array Radar”</i>
	13:50~14:10	Dr. Boonleng Cheong (OU) <i>“Our operational mobile radars”</i>
	14:10~14:30	Prof. Wei-Yu Chang (NCU) <i>“Retrieving the Liquid Water Content and Characteristics Dropsizes of Rain Using Collocated X- and K-band Radars: OSSE and Real Case Study”</i>

	14:30~14:50	Prof. Sheng-Hsiang Wang (NCU) <i>“Vertical Distribution of Atmospheric States and Pollutants Based on UAV Observations.”</i>
Coffee Break	14:50~15:10	-
Advanced Observations (II) Chair: Prof. Yu-Chieng Liou (NCU) Dr. Daisuke Hotta (JMA)	15:10~15:30	Prof. Yu-Chieng Liou (NCU) <i>“The application of radar/lidar observed and retrieved parameters in improving short-term QPF and studying PBL evolution”</i>
	15:30~15:50	Dr. Shu-Ya Chen (NCU) <i>“Comparisons between Polarimetric Radio Occultation Measurements with WRF Model Simulation for Tropical Cyclones”</i>
	15:50~16:10	Dr. Daisuke Hotta (JMA) <i>“Forward operator for polarimetric radio occultation measurements”</i>
Welcome Banquet	17:30~19:30	-

Day 3 (Wednesday, 5 March 2025)

📍 Morning Session: Teaching & Research Building, Lo Chia-Luen Hall
 📍 Afternoon Session: Teaching & Research Building, 3rd Floor, Circular Space

Session/Chair	Time	Speaker/Title
Registration	08:40~09:00	-
Advanced Meteorological Programs Chair: Prof. Kosei Yamaguchi (KU) Prof. Robert Dean Palmer (OU)	09:00~09:20	Prof. Kosei Yamaguchi (KU) <i>“Moonshot program: Heavy rainfall control by wind intervention”</i>
	09:20~09:40	Prof. Robert Dean Palmer (OU) <i>“Overview of the ARRC and the Horus Program at the University of Oklahoma”</i>
	09:40~10:00	Dr. Cheng-Chin Liu (CWA) <i>“Overview of Current Status and Planning of AI/ML Applications in CWA”</i>
Coffee Break	10:00~10:10	-
Keynote Speech Chair: Prof. Kosei Yamaguchi (KU)	10:10~10:40	Prof. Shu-Chih Yang (NCU) <i>“Scale-Dependent Inflation for a Multi-Scale Radar Ensemble Data Assimilation System and its Impact on Short-Range Heavy Rainfall Prediction in Taiwan”</i>
Coffee Break	10:40~10:50	-
Severe Weather and Precipitation Prediction Chair: Prof. Kao-Shen Chung (NCU) Dr. Jidong Gao (NOAA)	10:50~11:10	Dr. Jidong Gao (NOAA) <i>“The Numerical Prediction of Severe Convective Storms: Advances in Research and Applications, Remaining Challenges, and Outlook for the Future”</i>
	11:10~11:30	Prof. Kao-Shen Chung (NCU) <i>“An Innovative Approach to ZDR Data Assimilation Using an Ensemble Kalman Filter”</i>
	11:30~11:50	Prof. Ching-Yuang Huang (NCU) <i>“Intensification of Supertyphoon Hagibis (2019) with Concentric Eyewall Formation in Response to Physical Processes as Explored by the Extended Sawyer-Eliassen Equation”</i>
	11:50~12:10	Dr. Kuan-Jen Lin (NCU) <i>“Impact of Ocean Coupling on Heavy Rainfall Prediction in Taiwan”</i>
Lunch Break	12:10~13:30	📍 Teaching & Research Building, 3rd Floor, Future Research Space
Student Poster Session	13:30~16:00	📍 Teaching & Research Building, 3rd Floor, Circular Space
Closing remark	16:00~16:10	📍 Teaching & Research Building, 3rd Floor, Circular Space

Day 4 (Thursday, 6 March 2025)

📍 Science Building II, Room 713

Session/Chair	Time	Speaker/Title
Registration	09:00~09:30	-
Lecture 1	09:30~10:10	Prof. Robert Dean Palmer (OU) <i>“Examples of Student Projects in the ARRC at the University of Oklahoma”</i>
Coffee Break	10:10~10:30	-
Lecture 2	10:30~11:10	Prof. David Schwartzman-Cohenca (OU) <i>“Antenna pattern synthesis methods for Polarimetric Phased Array Radar”</i>
Lecture 3	11:10~11:50	Dr. Jidong Gao (NOAA) <i>“Improving High-Impact Severe Weather Analyses and Forecasts by Assimilating Radar Data”</i>
Lunch Break	11:50~13:30	📍 Science Building II, Room 702D
Lecture 4	13:30~14:10	Dr. Boonleng Cheong (OU) <i>“Open-source RadarKit/RadarHub”</i>
Lecture 5	14:10~14:50	Prof. Tian-You Yu (OU) <i>“Improving VAD wind estimates in clear-air using machine learning”</i>
Coffee Break	14:50~15:10	-
Lecture 6	15:10~15:50	Prof. Tetsuya Takemi (KU) <i>“Analysis and numerical modeling of mesoscale precipitating systems in humid conditions”</i>
Lecture 7	15:50~16:30	Prof. Seika Tanji (KU) <i>“The lattice Boltzmann numerical modeling of airflows and material transport over an obstacle to investigate blowing snow in Hokkaido”</i>
Coffee Break	16:30~16:50	-
Poster Award & Closing Remark	16:50~17:00	-

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國立中央大學
校園道

- 汽車停車場 Vehicle Parking
- 自動繳費機 Auto-Pay Station
- 自動提款機 ATM
- 緊急對講機 Emergency Intercom
- 校園共享滑板車站 OLOO E-scooter Stations
- 機車停車場 Motorcycle Parking
- 餐廳 Restaurant
- 商店 Store
- YouBike站 YouBike
- 電動汽車充電設施 Electric Vehicle Supply Equipment
- 公車站 Bus Stop
- 郵局 Post Office
- 洗手間 Toilet
- 自動體外心臟電擊去顫器 Automated External Defibrillator

便捷指引 Teaching & Research

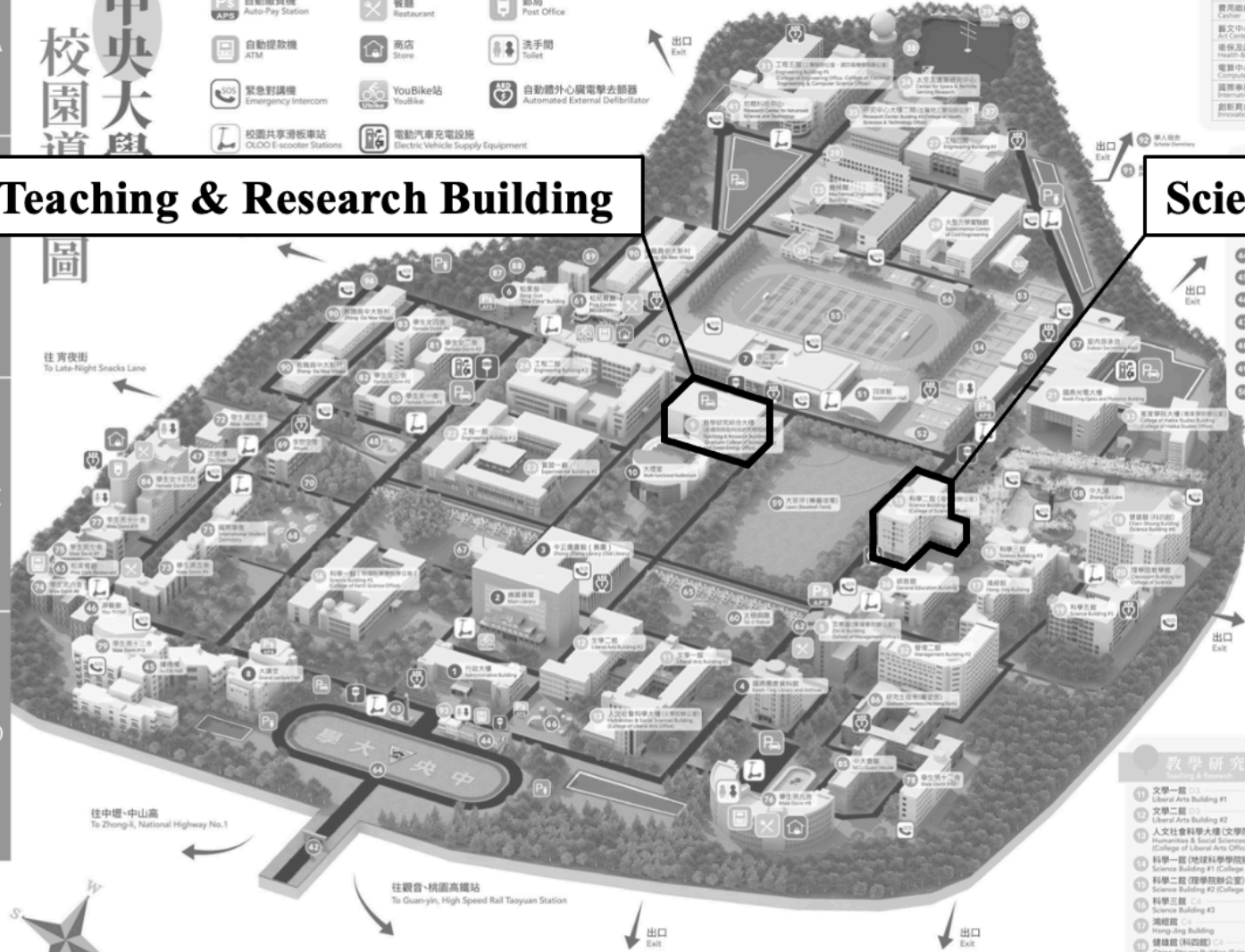
教務處 Office of Academic Affairs	2 教學研究綜合大樓 Teaching & Research Building
管理處 Office of Administration	1 行政大樓 Administrative Building
圖書館 Library	3 中正圖書館(新館) Zhong-Zheng Library (Old Library)
健康及諮商服務 Health & Counseling Services	3 中正圖書館(舊館) Zhong-Zheng Library (Old Library)
電腦中心 Computer Center	3 志勇館 Zhi-Yong Building
國際學生事務 International Student Affairs	4 教學研究綜合大樓 Teaching & Research Building
國際教育中心 Innovation & Incubating Center	4 志勇館 "The Cone" Building Zhi-Yong Building

體育室 Office of Physical Education	7 康仁堂 Yi-Rang Hall
校友服務中心(歷史館) Alumni Service Center (Museum of NCU History)	8 大講堂 Grand Lecture Hall
107電影空間 107 Cinemaspace	12 人文社會科學大樓 Humanities & Social Sciences Building
黑盒子劇場 Black Box Theater	13 人文社會科學大樓 Humanities & Social Sciences Building
昆蟲博物館 Insect Museum	14 文學二館 Liberal Arts Building #2
科學教育中心 Science Education Center	15 科學二館 Science Building #2
語言中心 Language Center	16 國際學生宿舍 International Student Dormitory
宿舍服務中心 Student Down-Service Center	21 國際學生宿舍 International Student Dormitory

Teaching & Research Building

Science Building II

圖



其他單位 Other Units

- 1 大門警衛室 Front Gate Security Room
- 2 後門警衛室 Rear Entrance Security Room

行政服務 Administration & Services

- 1 行政大樓 Administrative Building A1
- 2 總務處 Main Library L2
- 3 中正圖書館(新館) Zhong-Zheng Library (Old Library) L
- 4 圖書資訊科 Library and Archives L3
- 5 志勇館 Zhi-Yong Building
- 6 康樂館 Song-Guo "Pine Cone" Building
- 7 康仁堂 Yi-Rang Hall
- 8 大講堂 Grand Lecture Hall
- 9 教學研究綜合大樓 Teaching & Research Building
- 10 大禮堂 Main-Functional Auditorium

宿舍 Dormitories

- 75 國際學生宿舍 International Student Dormitory
- 76 學生男三舍 Male Dorm #3
- 77 學生女三舍 Female Dorm #3
- 78 學生男四舍 Male Dorm #4
- 79 學生女四舍 Female Dorm #4
- 80 學生男五舍 Male Dorm #5
- 81 學生女五舍 Female Dorm #5
- 82 中大會館 NCU Alumni House
- 83 中大會館 NCU Alumni House

教學研究 Teaching & Research

- 11 文學一館 Liberal Arts Building #1
- 12 文學二館 Liberal Arts Building #2
- 13 人文社會科學大樓(文學院辦公室) Humanities & Social Sciences Building (College of Liberal Arts Office)
- 14 科學一館(地理教學學院辦公室) Science Building #1 (College of Earth Science Office)
- 15 科學二館(理學院辦公室) Science Building #2 (College of Science Office)
- 16 科學三館 Science Building #3
- 17 漢經館 Hong-Jing Building
- 18 健體館(科四館) Chian-Shung Building Science Building #4
- 19 科學五館 Science Building #5
- 20 理學院教學館 Classroom Building for College of Science
- 21 觀光電大樓(客家學院辦公室) Keah-Ting Optics and Photonics Building (College of Hakka Studies Building (College of Hakka Studies Office))

Campus Map

