

# Research and perspective of extreme weather and climate events and climate change

氣候變遷、極端氣候與天氣事件之研究與展望

Date: 15-16 May

Venue: GIS NTU Convention Center, Taipei

Time	15 May (Fri) morning	Room: The Forum (國際會議廳)
08:20-	Registration	
09:00-09:30	Opening & Picture-taking	
09:30-10:00	Atmospheric Sciences and my Career beyond 30 years (Past, Present, and Future) 我與大氣科學 30 年 (Past, Present, and Future) <i>Ching-Yen Tsay (蔡清彥), Industrial Technology Research Institute (ITRI) (工業技術研究院)</i>	
10:00-10:20	Coffee Break	
<b>Keynote I; Chair: Chih-Pei Chang (張智北)</b>		
10:20-10:50	Regional Climate Change: Impacts of 3D Mountain/Snow and BC deposition <i>Kuo-Nan Liou (廖國男), Department of Atmospheric and Oceanic Sciences, UCLA</i>	
10:50-11:20	Research and Perspective of Mei-Yu in Taiwan <i>Tai-Jen George Chen (陳泰然), Department of Atmospheric Sciences, National Taiwan University</i>	
<b>Session 1; Chair: Chun-Chieh Wu (吳俊傑)</b>		
11:20-11:35	Is the Tropical Circulation Weakened or Strengthened Under Global Warming <i>William K. M. Lau (劉家銘), Earth System Science Interdisciplinary Center, University of Maryland</i>	
11:35-11:50	Predicting Tropical Cyclones and Global Weather in 2100 <i>Simon W. Chang (張偉正), Marine Meteorology Division, Naval Research Laboratory</i>	
<b>Session 2 (Poster)</b>		
<b>Theme I: Climate; Chair: Chung-Hsiung Sui &amp; William K. M. Lau</b>		
11:50-12:02	I-1	Moistening Processes for Intraseasonal Oscillations <i>Chung-Hsiung Sui (隋中興), Department of Atmospheric Sciences, National Taiwan University</i>
	I-2	Transition of Clouds and Convection Associated with MJO: Investigations using Satellite Observations and Numerical Simulations <i>Wei-Ting Chen (陳維婷), Department of Atmospheric Sciences, National Taiwan University</i>
	I-3	Intraseasonal Oscillation and the Taiwan Climate <i>Chih-Wen Hung (洪致文), Department of Geography, National Taiwan Normal University</i>
	I-4	Interannual Variability of Tropical Cyclone Activity in the South China Sea during Fall <i>Jau-Ming Chen (陳昭銘), Department of Maritime Information and Technology, National Kaohsiung Marine University</i>
	I-5	Influence of Climate Regime Shift on The Interdecadal Change of Tropical Cyclone Activity over Pacific Basin during middle-late 1990s <i>Chi-Cherng Hong (洪志誠), Department of Earth and Life, University of Taipei</i>
	I-6	SSTa, SICa, and Extreme Circulation in the Winter 2013-2014 <i>Huang-Hsiung Hsu (許晃雄), Research Center for Environmental Changes, Academia Sinica</i>
<b>Theme II: Weather and Precipitation; Chair: Ming-Jen Yang &amp; Ying-Hwa Kuo</b>		
12:02-12:12	II-1	Water Budget and Precipitation Efficiency of Typhoon and Squall Line <i>Ming-Jen Yang (楊明仁), Department of Atmospheric Sciences, National Taiwan University</i>
	II-2	Multiple Mechanisms of Orographic Precipitation Associated with Typhoons <i>Cheng-Ku Yu (游政谷), Department of Atmospheric Sciences, National Taiwan University</i>
	II-3	Development of a Taiwan unified cloud-resolving model with a partial step surface topography <i>Chien-Ming Wu (吳健銘), Department of Atmospheric Sciences, National Taiwan University</i>

	II-4 Radar data retrieval and assimilation over complex terrain and the applications on model QPN <i>Yu-Chieng Liou (廖宇慶), Department of Atmospheric Sciences, National Central University</i>	
	II-5 On the Upstream Track Deflection of Tropical Cyclones past Mountain Ranges: Idealized Experiments <i>Ching-Yuang Huang (黃清勇), Department of Atmospheric Sciences, National Central University</i>	
<b>Theme III: Aerosol, Land Process and Related Climate Issue; Chair: Wei-Ting Chen &amp; Tzung-May Fu</b>		
12:12-12:22	III-1 Impacts of Agricultural Irrigation on local, regional, and remote climate <i>Min-Hui Lo (羅敏輝), Department of Atmospheric Sciences, National Taiwan University</i>	
	III-2 Estimation of foreign versus domestic contributions to Taiwan's air pollution <i>Jen-Ping Chen (陳正平), Department of Atmospheric Sciences, National Taiwan University</i>	
	III-3 Positive but variable sensitivity of August surface ozone to large-scale warming in the southeast United States <i>Tzung-May Fu (傅宗政), Department of Atmospheric and Oceanic Sciences, Peking University</i>	
	III-4 Transport and Scavenging of Biomass Burning Aerosols in the Maritime Continent <i>Hsiang-He Lee (李湘鶴), Center for Environmental Sensing and Modeling (CENSAM), Singapore-MIT Alliance for Research and Technology (SMART)</i>	
	III-5 Numerical investigation of the coagulation mixing between dust and hygroscopic aerosol particles and its impacts <i>I-Chun Tsai (蔡宜君), Research Center for Environmental Changes, Academia Sinica</i>	
Time	15 May (Fri) afternoon	<b>Room: The Socrates (蘇格拉底廳)</b>
12:22-14:00	Lunch + Poster viewing	
<b>Session 3; Chair: Ming-Dah Chou (周明達)</b>		
14:00-14:15	Impact of GPS RO Data on the Prediction of Tropical Cyclogenesis <i>Ying-Hwa Kuo (郭英華), University Corporation for Atmospheric Research</i>	
14:15-14:30	From Line Echo Wave Pattern (LEWP) to Bow Echo <i>Wen-Chau Lee (李文兆), National Center for Atmospheric Research</i>	
14:30-14:45	Study the Effect of Aerosol Mixing State on Fog Formation in the Central Valley of California Using a Source-Oriented WRF/Chem Model <i>Shu-Hua Chen (陳淑華), Department of Land, Air &amp; Water Resources, University of California, Davis</i>	
14:45-15:00	Natural and Anthropogenic sources of atmospheric iron deposition in the Northwestern Pacific Ocean <i>Jen-Ping Chen (陳正平), Department of Atmospheric Sciences, National Taiwan University</i>	
15:00-15:15	From 1987 TAMEX to 2017 SC-YMC __ the development of instrumentation and measurement program in the department <i>Po-Hsiung Lin (林博雄), Department of Atmospheric Sciences, National Taiwan University</i>	
15:15-15:30	Two stories on clouds and large-scale circulation in global climate models: clouds and polar jet, clouds and Pacific Decadal Variability <i>Yen-Ting Hwang (黃彥婷), Department of Atmospheric Sciences, National Taiwan University</i>	
15:30-15:45	Coffee Break	
<b>Session 4; Chair: Hung-Chi Kuo (郭鴻基)</b>		
15:45-16:00	Deep convective cross-tropopause transport of water vapor <i>Pao-Kuan Wang (王寶貴), Research Center for Environmental Changes, Academia Sinica</i>	
16:00-16:15	Typhoon Rainfall Potential with Satellite Remote Sensing in Taiwan <i>Gin-Rong Liu (劉振榮), Center for Space and Remote Sensing Research, National Central University</i>	

16:15-16:30	CWB's monthly and seasonal forecast development in relation to extreme climate events and climate change <i>Mong-Ming Lu (盧孟明), Research and Development Center, Central Weather Bureau</i>	
16:30-16:45	Changes of precipitation patterns in Monsoon Asia associated with global warming <i>Jia-Yuh Yu (余嘉裕), Department of Atmospheric Sciences, Chinese Culture University</i>	
16:45-17:00	How much rainfall extremes associated with Typhoon Morakot (2009) can be attributable to anthropogenic influences? <i>Cheng-Ta Chen (陳正達), Department of Earth Sciences, National Taiwan Normal University</i>	
Time	16 May (Sat) morning	<b>Room: The Socrates (蘇格拉底廳)</b>
<b>Keynote II; Chair: Jen-Ping Chen (陳正平)</b>		
09:00-09:30	Trends of regional precipitation and their control mechanisms during the 1979–2013 global warming <i>Shaw-Chen Liu (劉紹臣), Research Center for Environmental Changes, Academia Sinica</i>	
<b>Session 5; Chair: Chung-Hsiung Sui (隋中興)</b>		
09:30-09:45	Influences of stratospheric ozone changes on Antarctic sea ice <i>Yongyun Hu (胡永云), Department of Atmospheric Oceanic Sciences, Peking University</i>	
09:45-10:00	What causes divergent projections of ENSO amplitude change under global warming in CMIP5 models? <i>Tim Li (李天明), IPRC and Department of Atmospheric Sciences, SOEST, University of Hawaii</i>	
10:00-10:15	Typhoon researches at HyARC and future collaboration with the NTU atmospheric science group <i>Kazuhisa Tsuboki, Hydrospheric-Atmospheric Research Center (HyARC), Nagoya University</i>	
10:15-10:30	Aerosol-cloud microphysics-radiation interactions: A case study of stratocumulus clouds over Southeast Pacific <i>Wei-Chyung Wang (王維強), Atmospheric Sciences Research Center, State University of New York at Albany.</i>	
10:30-10:45	International Research Collaborations on Extreme Weather in Changing Climate in the Maritime Continent <i>Shigeo Yoden, Department of Geophysics, Kyoto University</i>	
10:45-11:00	Coffee break	
<b>Session 6; Chair: Cheng-Shang Lee (李清勝)</b>		
11:00-11:15	Regional Climate Change in CORDEX-East Asia <i>Dong-Kyou Lee, School of Earth and Environmental Sciences, Seoul National University</i>	
11:15-11:30	A Study of Typhoon Rainfall in Taiwan <i>Cheng-Shang Lee (李清勝), Department of Atmospheric Sciences, National Taiwan University</i>	
11:30-11:45	Quantitative Precipitation Estimation using S-Band Polarimetric Radars in Taiwan Meiyu Season <i>Ben Jong-Dao Jou (周仲島), Department of Atmospheric Sciences, National Taiwan University</i>	
11:45-12:00	Wavenumber-2 Deep Convection in the Tropical Cyclone <i>Hung-Chi Kuo (郭鴻基), Department of Atmospheric Sciences, National Taiwan University</i>	
12:00-12:15	From Targeted Observation to Eyewall Dynamics: Progress from 2005 to 2015 <i>Chun-Chieh Wu (吳俊傑), Department of Atmospheric Sciences, National Taiwan University</i>	
Time	16 May (Sat) afternoon	<b>To be held in the Department of Atmospheric Sciences, NTU</b>
12:30-13:30	Lunch	
13:30-17:00	NTU AS Celebration Activity (all welcome to join)	
18:30-	Banquet (at Hung Kan Restaurant)	

## Conference Venue: GIS NTU Convention Center, Taipei (集思台大會議中心)



Address: B1F, No. 85, Sec. 4, Roosevelt Rd., Taipei 106, Taiwan  
台北市 106 大安區羅斯福路四段 85 號 B1(台灣大學第二活動中心內)

Directions: Take the MRT ([route map](#)) and exit at Gongguan Station, take exit 2 (turn left) and walk for approximately 2 minutes to reach the GIS NTU Convention Center.  
搭乘捷運者請於松山新店線的公館站下車，2 號出口左轉步行約 2 分鐘即達。

## Celebration Banquet Venue: Hung Kan Restaurant (紅磡婚宴會館)



Address: No. 145, Sec. 3, Ren'ai Rd. Taipei 106, Taiwan  
台北市 106 大安區仁愛路三段 145 號 (空軍活動中心)

Directions: Take the MRT ([route map](#)) and exit at Zhongxiao Station, take exit 2 and walk for approximately 3 minutes to reach the Hung Kan Restaurant.  
最近捷運站為忠孝復興站，請於 2 號出口出站，步行約 3 分鐘即達。