

Day 1 (March 7, Monday)

9:30 **Opening Remarks**

10:00 **Group Photo and Break**

Invited Talk

Chair: David P. Jorgensen and Masaki Katsumata

1 **10:15** **Synoptic and Mesoscale Processes Associated with Extreme Convective Rainfall**

Richard H. Johnson* (Colorado State University, Fort Collins)

10:40 **Poster Introduction**

Chair: David P. Jorgensen and Masaki Katsumata

Session 1 **Mesoscale Convective Systems (I)**

Chair: David P. Jorgensen and Masaki Katsumata

2 **11:40** **Role of mesoscale convections on the moistening process in the tropical intraseasonal variations observed in recent field campaigns**

Masaki Katsumata*, Kunio Yoneyama, Hiroyuki Yamada, Hisayuki Kubota, Ryuichi Shirooka (Japan Agency for Marine-Earth Science and Technology, Yokosuka), Paul E. Ciesielski and Richard H. Johnson (Colorado State University, Fort Collins)

3 **11:55** **The Kinematic and Dynamic Structures of a Quasi-linear Convective System in Southern China**

Kun Zhao* and Chaoshi Wei (Nanjing University, Nanjing)

4 **12:10** **Development environment of Mesoscale Convective Systems associated with the Changma front during 9-10 July 2007**

Jong-Hoon Jeong, Dong-In Lee*, Sang-Min Jang (Pukyong National University, Busan), and Chung-Chieh Wang (National Taiwan Normal University, Taipei)

5 **12:25** **A Subtropical Oceanic Mesoscale Convective Vortex Observed During SoWMEX/TiMREX Pt. II: Cyclogensis and Evolution**

Hsiao-Wei Lai (National Taiwan University, Taipei), Christopher A. Davis (National Center for Atmospheric Research, Boulder), and Ben Jong-Dao Jou* (National Taiwan University, Taipei)

12:40 **Lunch**

Invited Talk

Chair: Zhe-Min Tan and Hung-Chi Kuo

6 14:00

Characteristics of Forecast Precipitation in the JHWC Real-time WRF Prediction System

Dong-Kyou Lee*, Yonghan Choi, and Ji-Hyun Ha (Seoul National University, Seoul)

Session 2

Tropical Cyclones (I)

Chair: Zhe-Min Tan and Hung-Chi Kuo

7 14:25

Extreme Rainfall in Taiwan and the interaction of typhoon with monsoons

Hung-Chi Kuo*, Shih-Hao Su, Yi-Ting Yang, and Li-Huan Hsu (National Taiwan University, Taipei)

8 14:40

Genesis of Typhoon Fengshen (2008) from an uptilted synoptic-scale disturbance: PALAU field experiment and global cloud-resolving simulation

Hiroyuki Yamada*, Tomoe Nasuno (Japan Agency for Marine-Earth Science and Technology, Yokosuka), Wataru Yanase (University of Tokyo, Kashiwa), Ryuichi Shiroyaka, Kunio Yoneyama, Masanori Yoshizaki (Japan Agency for Marine-Earth Science and Technology, Yokosuka), and Masaki Satoh (University of Tokyo, Kashiwa / Japan Agency for Marine-Earth Science and Technology, Yokosuka)

9 14:55

The Impact of Mesoscale Convective System on the Track of Typhoon Fengshen

Xinyong Shen*, Mingyu Bi, Jia Liu, Nan Zhang, and Zhiying Ding (Nanjing University of Information Science and Technology, Nanjing)

10 15:10

Preliminary Analysis on the Kinematics structure of a convective rainband during the impact of Typhoon Morakot (2009)

Yao-Chung Chuang*, Chih-Hsien Wei, and Jian-Liang Wang (National Defense University, Taoyuan)

11 15:25

Evolution of Multi-scale Vortex in the development of Hurricane Dolly (2008)

Juan Fang* (Nanjing University, Nanjing) and Fuqing Zhang (The Pennsylvania State University, University Park)

12 15:40

The Role of Typhoon Songda (2004) in Producing Distantly Located Heavy Rainfall in Japan

Yongqing Wang (Nanjing University of Information Science and Technology, Nanjing / University of Hawaii, Honolulu), Yuqing Wang* (University of Hawaii, Honolulu / Nanjing University of Information Science and Technology, Nanjing), and Hironori Fudeyasu (University of Hawaii, Honolulu)

15:55 Break

Invited Talk

Chair: Dong-In Lee and Hiroyuki Yamada

- 13 16:10 **2008/2009 South China Heavy Rainfall Experiment (SCHeREX) and its Achievements**

Yunqi Ni*, Renhe Zhang, Liping Liu, Zhehu Cui (Chinese Academy of Meteorological Sciences, Beijing), Chungang Cui, and Qilin Wan (China Meteorological Administration, Beijing)

Session 3 Monsoon Frontal Systems and Analysis (I)

Chair: Dong-In Lee and Hiroyuki Yamada

- 14 16:35 **Precipitation system observations in monsoon season around the East China Sea from 2006 to 2010**

Dong-In Lee*, Sang-Min Jang, Sung-Hwa Park (Pukyong National University, Busan), Keun-Ok Lee (Nagoya University, Nagoya), Woon-Seon Jung, Poo-Kyoung Kim, Min Jang, Jong-Hoon Jeong, Sung-A Jung, Su-kyung Kim (Pukyong National University, Busan), Hiroshi Uyeda, Kazuhisa Tsuboki, Taro Shinoda (Nagoya University, Nagoya), Shinsuke Satoh, Hiroshi Hanado, and Seiji Kawamura (National Institute of Information and Communications Technology, Onna)

- 15 16:50 **Mechanisms for the generation of nocturnal convection associated with morning Meiyu precipitation in the Yangtze River Valley within 5-day simulations**

Guixing Chen*, Weiming Sha, Toshiki Iwasaki (Tohoku University, Sendai), Jun Matsumoto (Tokyo Metropolitan University, Tokyo), and Zhiping Wen (Sun Yat-sen University, Guangzhou)

- 16 17:05 **Analysis on Torrential Rain in South China Caused by Tropical Disturbance**

Yun Chen*, Jun Xu (National Meteorological Center, Beijing), and Baogui Bi (China Meteorological Administration, Beijing)

- 17 17:20 **Kinematic characteristics of precipitation system observed at Chujado, Korea on July 15, 2009**

Sang-Min Jang, Dong-In Lee*, Poo-Kyoung Kim, Min Jang, Sung-Hwa Park, Jong-Hoon Jeong, Sung-A Jeong, Woon-Seon Jung (Pukyong National University, Busan), and Hiroshi Uyeda (Nagoya University, Nagoya)

- 18 **17:35** **Development processes of Baiu frontal depressions**
Eigo Tochimoto* and Tetsuya Kawano (Kyushu University, Fukuoka)
- 19 **17:50** **Climatological Characteristics of the LLJ in Shanghai during the Meiyu, pre-Meiyu and post-Meiyu seasons**
Yu Du* and Qinghong Zhang (Peking University, Beijing)
- 20 **18:05** **A Climatology of Short-Time Heavy Rainfall over Contiguous China during Warm Season**
Jiong Chen and Yongguang Zheng* (National Meteorological Center, Beijing)
- 21 **18:20** **Linkages of the Weather System between higher and lower latitudes - Importance of the “Atmospheric River” -**
Yoshio Asuma* (University of the Ryukyus), Takashi Yamanouchi (National Institute of Polar Research), and Zoltan Toth (National Oceanic and Atmospheric Administration)
- 22 **18:35** **The vertical structure and evolution of a cold vortex over Northeastern China in May 2010**
Shenming Fu*, Jianhua Sun, and Sixiong Zhao (Institute of Atmospheric Physics, Chinese Academy of Sciences, Beijing)
- 23 **18:50** **Views of large-scale precipitating systems in mid-latitudes and tropics from the response problem of localized heating**
Masanori Yoshizaki* (Japan Agency for Marine-Earth Science and Technology, Yokosuka)
- 19:30** **Welcome Party at Symposium Universal Club (Nagoya University)**

Day 2 (March 8, Tuesday)

Invited Talk

Chair: Chung-Chieh Wang and Qoosaku Moteki

24 8:50

Value of a Dual-Polarized Gap-Filling Radar in Support of Southern California Post-fire Debris-Flow Warnings

David P. Jorgensen* (National Oceanic and Atmospheric Administration/National Severe Storms Laboratory, Norman), Maiana N. Hanshaw, Kevin M. Schmidt (United States Geological Survey, Menlo Park), Jayme L. Laber (National Oceanic and Atmospheric Administration/National Weather Service, Oxnard), Dennis M. Staley, Jason W. Kean (United States Geological Survey/Central Region Geologic Hazards Team, Denver), and Pedro J. Restrepo (National Oceanic and Atmospheric Administration/National Weather Service, Silver Spring)

Session 4

Orographic Precipitation Systems

Chair: Chung-Chieh Wang and Qoosaku Moteki

25 9:15

Numerical Study on Rainbands Upstream from Mesoscale Topography under the Influence of Approaching Typhoon in East Asia

Chung-Chieh Wang* (National Taiwan Normal University, Taipei) and Tzu-Chun Lin (Chinese Culture University, Taipei), and Kazuhisa Tsuboki (Nagoya University, Nagoya)

26 9:30

Case Study of a Heavy Rainfall Event in Amami Island on 20 October 2010

Hiroshige Tsuguti* (Meteorological Research Institute, Tsukuba) and Teruyuki Kato (Japan Meteorological Agency, Tokyo)

27 9:45

Impact of MCSs generated around Sichuan-basin and southeastern Tibetan Plateau on development of upper high pressure and precipitation in the Meiyu front

Shiori Sugimoto* and Kenichi Ueno (University of Tsukuba, Tsukuba)

28 10:00

Statistical relationship between topography and the distribution of summer precipitation in the Kanto region, Japan

Shakti P.C.*, Masayuki Maki (University of Tsukuba, Tsukuba / National Research Institute for Earth Science and Disaster Prevention, Tsukuba), and Shingo Shimizu (National Research Institute for Earth Science and Disaster Prevention, Tsukuba)

29 10:15

The Remote Effect of the Tibetan Plateau on Downstream Flow in Early Summer

Yafei Wang*, Xiangde Xu (Chinese Academy of Meteorological Sciences, Beijing), Anthony R. Lupo (University of Missouri, Columbia), Pingyun Li (Shanxi Meteorological Bureau, Xian), and Zhicong Yin (Beijing Meteorological Bureau, Beijing)

30 10:30 **Structure of a Cumulonimbus Cloud Maintained for a Long Time over a Slope between Mountains in Summer Season**

Tetsuya Sano* (University of Yamanashi, Kofu), Satoru Oishi (Kobe University, Kobe), and Kengo Sunada (University of Yamanashi, Kofu)

31 10:45 **Maintenance and Enhancement Mechanisms of the Precipitation Band Formed along the Ibuki-Suzuka Mountains on 2-3 September 2008**

Kazuomi Morotomi*, Taro Shinoda (Nagoya University, Nagoya), Yukari Shusse (National Research Institute for Earth Science and Disaster Prevention, Tsukuba), Tadayasu Ohigashi, Kazuhisa Tsuboki, and Hiroshi Uyeda (Nagoya University, Nagoya)

11:00 **Break**

Session 5 Mesoscale Convective Systems (II)

Chair: Chung-Chieh Wang and Qoosaku Moteki

32 11:15 **Storm Evolution, Convective Processes, and Microphysics of a Heavy Precipitation System during TiMREX**

Weixin Xu* and Edward J. Zipser (University of Utah, Salt Lake City)

33 11:30 **Extratropical Enhancement of Tropical Precipitation Systems over the Western North Pacific**

Biao Geng*, Masaki Katsumata, Hiroyuki Yamada, Ryuichi Shirooka, and Kunio Yoneyama (Japan Agency for Marine-Earth Science and Technology, Yokosuka)

34 11:45 **Analysis of Mesoscale Circulation Structure of Low-vortex Rainstorm over South China**

Zhi-ying Ding*, Lei Liu, Xiang-xiang Chen, and Xin-yong Shen (Nanjing University of Information Science and Technology, Nanjing)

35 12:00 **A Numerical Simulation of the Bowing Process within A Squall Line Associated with A Quasi-stationary Front in South China on 23 April 2007**

Zhiyong Meng* (Peking University, Beijing), Fuqing Zhang, Paul Markowski (Pennsylvania State University, University Park), Duochang Wu (Peking University, Beijing), and Kun Zhao (Nanjing University, Nanjing)

36 12:15 **Characteristics of the vortical disturbances during PALAU2010**

Qoosaku Moteki*, Ryuichi Shirooka, Junko Suzuki, Chiharu Takahashi, and Ayako Seiki (Japan Agency for Marine-Earth Science and Technology, Yokosuka)

12:30 **Lunch**

Invited Talk

Chair: Zhiyong Meng and Sento Nakai

37 13:30 **Secondary Eyewall Formation Simulated in an Idealized Experiment with ARW-WRF Model**

Zhe-Min Tan* and Xin Qiu (Nanjing University, Nanjing)

Session 6 Tropical Cyclones (II) and Cloud Microphysics

Chair: Zhiyong Meng and Sento Nakai

38 13:55 **A Study on the Eyewall Expansion of Typhoon Sepat (2007) during Its Landfall Process**

Ying Li* (Chinese Academy of Meteorological Sciences, Beijing), Chuanhai Qian (National Meteorological Center, Beijing), and Lianshou Chen (Chinese Academy of Meteorological Sciences, Beijing)

39 14:10 **A Case Study on the Torrential Rainfall from Typhoon Fanapi (2010) over Southwestern Taiwan**

Tien-Chiang Yeh*, Der-Song Chen (Central Weather Bureau, Taipei), Ling-Feng Hsiao (Taiwan Typhoon and Flood Research Institute, Taipei), Ming-Hwa Cheng, and Kang-Ning Huang (Central Weather Bureau, Taipei)

40 14:25 **Impact of landfalling tropical cyclones in mainland China**

Qinghong Zhang* (Peking University, Beijing), Qing Wei (Chinese Meteorological Agency, Beijing), and Lianshou Chen (Chinese Academy of Meteorological Sciences, Beijing)

41 14:40 **A Model Study on Tropical Cyclone Motion and Intensification in an Asymmetric Moisture Field**

Yue Ying* and Qinghong Zhang (Peking University, Beijing)

42 14:55 **On the Squall Lines Preceding Land-falling Tropical Cyclones**

Yunji Zhang and Zhiyong Meng* (Peking University, Beijing)

43 15:10 **Estimation of microphysical processes in maritime squall line using raindrop size distribution**

Sung-A Jung*, Dong-In Lee, Min Jang (Pukyong National University, Busan), and Ben Jong-Dao Jou (National Taiwan University, Taipei)

44 15:25 **Observations of solid precipitation particles, precipitation intensity, and radar parameters in the Niigata region: Overview**

Sento Nakai* (National Research Institute for Earth Science and Disaster Prevention, Nagaoka), Manato Fuzita, Takahumi Katsushima (Nagaoka University of Technology, Nagaoka), Hiroki Motoyoshi (National Research Institute for Earth Science and Disaster Prevention, Nagaoka), Toshiro Kumakura (Nagaoka University of Technology, Nagaoka), Masaaki Ishizaka (National Research Institute for Earth Science and Disaster Prevention, Nagaoka), Kotaro Yokoyama (National Agricultural Research Center), Shigeki Murakami (Forestry and Forest Products Research Institute, Tohkamachi), and Gyuwon Lee (Kyungpook National University, Deagu)

15:40 **Break**

Invited Talk

Chair: Gyuwon Lee and Tetsuya Takemi

45 15:55 **Tri-agency radar networks: Where are we heading?**

Gyuwon Lee*, Jung-Hoon Lee, Yo-Han Cho, Kwang-Deuk Ahn, Sung-Hwa Jung (Kyungpook National University, Deagu), Bok-Haeung Heo (Korea Meteorological Administration), and Choong-Ke Lee (Han River Flood Control Office)

Session 7 Radar Observation, QPE, and Analysis (II)

Chair: Gyuwon Lee and Tetsuya Takemi

46 16:20 **Algorithm for the identification and tracking of convective cells using constant and adaptive threshold method**

Shingo Shimizu* (National Research Institute for Earth Science and Disaster Prevention, Tsukuba) and Hiroshi Uyeda (Nagoya University, Nagoya)

47 16:35 **Identification and tracking of convective storm cells on 3-dimensional reflectivity fields using fuzzy approach**

Sung-Hwa Jung*, Gyuwon Lee (Kyungpook National University, Deagu),
Hyung-Woo Kim (Republic of Korea Air Force), and Bong-Jae Kuk
(Korea Aerospace Research Institute)

48 **16:50** **Characterization of the Defined Structure in Stratiform Precipitation
from Wind Profile Radar**

Zheng Ruan*, RunSheng Ge (Chinese Academy of Meteorological
Sciences, Beijing), Yu Huang (Nanjing University of Information Science
and Technology, Nanjing), and Sha Wang (Chengdu University of
Information Technology)

49 **17:05** **Dust devil-like vortices along sea-breeze fronts detected by a 3D-
scanning Doppler lidar**

Chusei Fujiwara*, Kazuya Yamashita, and Yasushi Fujiyoshi (Hokkaido
University, Sapporo)

50 **17:20** **Meso-scale Convective Weather Analysis and Severe Convective
Weather Forecasting**

Xiaoling Zhang*, Yun Chen, and Tao Zhang (National Meteorological
Center, Beijing)

51 **17:35** **Environmental Stability Control of Convective Precipitation:
Implications for Convection under Global Warming**

Tetsuya Takemi* (Kyoto University, Uji)

19:30 **Move to Meieki (Nagoya Station) Area by a Bus and others
Bunquet at Japanese Style Izakaya
at Zaza Hanare (3-13-13 Meieki Nakamura-ku Nagoya,
+81-52-562-9995)**

Day 3 (March 9, Wednesday)

Invited Talk

Chair: Biao Geng and Yukari Shusse

52 8:50

Diagnosing Landfalling Tropical Cyclone Structures Using VORTRAC

Wen-Chau Lee* (National Center for Atmospheric Research, Boulder), Paul Harasti (Naval Research Laboratory), and Michael Bell (Naval Postgraduate School)

Session 8

Thunderstorm

Chair: Biao Geng and Yukari Shusse

53 9:15

Cloud-to-Ground Lightning Characteristics and Microphysical Structure of a Convective Cloud near the Center of Typhoon Melor

Yukari Shusse* (National Research Institute for Earth Science and Disaster Prevention, Tsukuba), Kazuhisa Tsuboki, Tadayasu Ohigashi, and Hiroshi Uyeda (Nagoya University, Nagoya)

54 9:30

Improvement of Hydrometeor Classification in a Thundercloud Observed over Nobi Plain, Using Two X-band Polarimetric Radars

Takeharu Kouketsu* and Hiroshi Uyeda (Nagoya University, Nagoya)

55 9:45

Lightning Activity and Its Relationship with Precipitation Feature in a Thunderstorm That Continued for more than 24 Hours

Dong Zheng*, Yijun Zhang, and Qing Meng (Chinese Academy of Meteorological Sciences, Beijing)

56 10:00

Effects of Midtropospheric Dryness on Evolution of Supercell Storm

Takumi Honda* and Tetsuya Kawano (Kyushu University, Fukuoka)

10:15

Break

Session 9

Mesoscale Convective Systems (III)

Chair: Biao Geng and Yukari Shusse

57 10:30

Structure and Energetics of Mesoscale Vortex Producing Heavy Rainfall in China during Meiyu Season of 2010

Sixiong Zhao*, Fei Yu, Shenming Fu, and Jianhua Sun (Institute of Atmospheric Physics, Chinese Academy of Sciences, Beijing)

58 10:45

The Impacts of the MPS on the Diurnal Cycle of convections in Meiyu Front

Jianhua Sun* (Institute of Atmospheric Physics, Chinese Academy of Sciences, Beijing / The Pennsylvania State University, University Park) and **Fuqing Zhang** (The Pennsylvania State University, University Park)

59 **11:00** **Structure of a heavy precipitation system in Gifu prefecture, Japan, on 15 July 2010**

Mariko Oue*, **Koichi Inagaki**, **Taro Shinoda**, **Takeharu Kouketsu**, **Tadayasu Ohigashi**, **Masaya Kato**, **Kazuhisa Tsuboki**, and **Hiroshi Uyeda** (Nagoya University, Nagoya)

60 **11:15** **Study on the 3D Structure of the Heavy Rainfall with Dual-Doppler Radar**

HaiGuang Zhou* (Chinese Academy of Meteorological Sciences, Beijing)

61 **11:30** **Characteristics of Severe Rainfall Events at the Duplicate Display of Satellite Images and Winds**

Jianmin Xu* (National Satellite Meteorological Center, Beijing)

62 **11:45** **A Study of a Meso-beta-scale Convective Vortex and Associated Heavy Rainfall Using High-resolution Mesoscale Reanalysis Data**

Wenhui Xu* (Meteorological Information Center, Beijing), **Yunqi Ni** (Chinese Academy of Meteorological Sciences, Beijing), and **Xiaokang Wang** (Wuhan Heavy Rainfall Institute)

12:00 **Lunch**

Session 10 **Numerical Simulation and Quantative Precipitation Forecasting**
Chair: Pay-Liam Lin and Seon Ki Park

63 **13:30** **The Goddard Multi-Scale Modeling System with Unified Physics**

Wei-Kuo Tao* (NASA Goddard Space Flight Center, Greenbelt), **J. Chern** (NASA Goddard Space Flight Center, Greenbelt / University of Maryland, Baltimore), **T. Iguchi** (NASA Goddard Space Flight Center, Greenbelt / University of Maryland, College Park), **S. Lang** (NASA Goddard Space Flight Center, Greenbelt / Science Systems and Applications Inc., Greenbelt), **C. Peters-Lidard** (NASA Goddard Space Flight Center, Greenbelt), **X. Li** (NASA Goddard Space Flight Center, Greenbelt / University of Maryland, Baltimore), **T. Matsui** (NASA Goddard Space Flight Center, Greenbelt / University of Maryland, College Park), **K. Mohr** (NASA Goddard Space Flight Center, Greenbelt), **B.-W. Shen** (NASA Goddard Space Flight Center, Greenbelt / University of Maryland, College Park), **J. J. Shi**, and **X. Zeng** (NASA Goddard Space Flight Center, Greenbelt / University of Maryland, Baltimore)

- 64 13:45 **The impact of microphysics on the Simulation of Typhoon Morakot 2009**
- Pay-Liam Lin* (National Central University, Jhong-Li), Wei-Kuo Tao (NASA Goddard Space Flight Center, Greenbelt), J. J. Shi (NASA Goddard Space Flight Center, Greenbelt / University of Maryland, Baltimore), S. Lang (NASA Goddard Space Flight Center, Greenbelt / Science Systems and Applications Inc., Lanham), J. Y. Chen (National Central University, Jhong-Li), M.-Y. Chang (Central Weather Bureau, Taipei), C.-H. Sui (National Taiwan University, Taipei), M.-J. Yang (National Central University, Jhong-Li), C.-C. Wu, and C.-D. Jou (National Taiwan University, Taipei)
- 65 14:00 **Development of a Validation Method for a Cloud-Resolving Model using Satellite Data of Infrared and Microwave Bands**
- Taro Shinoda*, Hirohiko Masunaga (Nagoya University, Nagoya), Munehisa K. Yamamoto (Chiba University, Chiba), Masaya Kato (Nagoya University, Nagoya), Atsushi Higuchi (Chiba University, Chiba), Kazuhisa Tsuboki, and Hiroshi Uyeda (Nagoya University, Nagoya)
- 66 14:15 **The Predictability of A Squall Line Associated with a Quasi-Stationary Front in South China on 23 April 2007**
- Duochang Wu* and Zhiyong Meng (Peking University, Beijing)
- 67 14:30 **Improvement of Typhoon WRF (TWRF) Model for Typhoon Prediction at Taiwan**
- Der-Song Chen* (Central Weather Bureau, Taipei), Ling-Feng Hsiao (Taiwan Typhoon and Flood Research Institute, Taipei), Tien-Chiang Yeh (Central Weather Bureau, Taipei), Yong-Run Guo (National Center for Atmospheric Research, Boulder), Kang-Ning Huang, Chin-Tzu Fong, Jing-Shan Hong (Central Weather Bureau, Taipei), and Ying-Hwa Kuo (National Center for Atmospheric Research, Boulder)
- 68 14:45 **Intensity Forecast Experiment of Hurricane Rita (2005) with a Cloud-Resolving, Coupled Hurricane-Ocean Modeling System**
- Xin Qiu (Nanjing University, Nanjing / National Center for Atmospheric Research, Boulder), Qingnong Xiao (National Center for Atmospheric Research, Boulder / University of South Florida, Saint Petersburg), Zhe-Min Tan* (Nanjing University, Nanjing), and John Michalakes (National Center for Atmospheric Research, Boulder)
- 69 15:00 **Parameter Estimation Using the Genetic Algorithm for Typhoon Rusa (2002)**

Xing Yu*, Seon Ki Park (Ewha Womans University, Seoul), and Yong Hee Lee (National Meteorological Research Institute)

15:15 Break

Session 11 Data Assimilation

Chair: Wen-Chau Lee and Shingo Shimizu

- 70 **15:30** **Assimilation of Coastal Doppler Radar Data for Short-Term Forecasting of Typhoon Meranti (2010) at Landfall**
Xinfeng Li, Kun Zhao* (Nanjing University, Nanjing), and Ming Xue (University of Oklahoma, Norman)
- 71 **15:45** **Assimilation of Surface AWS Data for Heavy Rainfall Prediction**
Ji-Hyun Ha and Dong-Kyou Lee* (Seoul National University, Seoul)
- 72 **16:00** **A new approach to adjust sea surface wind using altimeter wind data by regularization and variational method**
Zhu-Hui Jiang* and Si-Xun Huang (PLA University of Science and Technology, Nanjing)
- 73 **16:15** **Heavy Rainfall Prediction with Weather Research and Forecasting (WRF) Four Dimensional Variational (4DVAR) Method**
Yonghan Choi and Dong-Kyou Lee* (Seoul National University, Seoul)
- 74 **16:30** **Modification of Air-Sea Exchange Coefficients in the High-Wind Regime of a Mature Tropical Cyclone Using an Adjoint Method**
Kosuke Ito*, Yoichi Ishikawa, and Toshiyuki Awaji (Kyoto University, Kyoto)
- 75 **16:45** **Impacts of ATOVS AMSU-A Data Assimilation in Regional Numerical Forecasting**
Shuang Xi*, Gang Ma, Peng Zhang, Qifeng Lu (National Satellite Meteorological Center, Beijing), Youping Xu, Xin Wang (Beijing Institute of Applied Meteorology, Beijing), Jing Zheng, and Xiaoqing Li (National Satellite Meteorological Center, Beijing)
- 76 **17:00** **Development of Korea Local Radar Processing System (KLRPS) for data assimilation and its impact on very short range forecast**

KwangDeuk Ahn, Yo-Han Cho, Gyuwon Lee* (Kyungpook National University, Deagu), Eun-Ha Lim (Korea Meteorological Administration), Yong-Hee Lee, and Dong-Eon Chang (National Institute of Meteorological Research)

Invited Talk

Chair: Wen-Chau Lee and Shingo Shimizu

77 17:15 Heavy Rain and Typhoon in the Taiwan Area: The Interaction among Typhoon, Monsoon, and Complex Terrain

Ben Jong-Dao Jou* (National Taiwan University, Taipei) and Yu-Cheng Kao (Taipei City Government, Taipei)

17:40 Closing Remarks

19:00 IOC Meeting (Invitation only)

Poster Presentation

- P-01** **Water Cycle and Micro-Physical Processes Associated with a Meso-Scale Convective Vortex System in the Dabie Mountain Area**
- Xiaokang Wang* (China Meteorological Administration) and Yunqi Ni (Chinese Academy of Meteorological Sciences, Beijing)
- P-02** **A Subtropical Oceanic Mesoscale Convective Vortex Observed During SoWMEX/TiMREX Pt. I: Kinematic and Thermodynamic Structure**
- Hsiao-Wei Lai (National Taiwan University, Taipei), Christopher A. Davis (National Center for Atmospheric Research, Boulder), and Ben Jong-Dao Jou* (National Taiwan University, Taipei)
- P-03** **Mesoscale Boundaries and Storm Initiation during SoWMEX/TiMREX**
- Radian Rong-Guang Hsiu, Ben Jong-Dao Jou* (National Taiwan University, Taipei), and Wen-Chau Lee (National Center for Atmospheric Research, Boulder)
- P-04** **Interactions among various PV Anomalies on Mesoscale Vortex inducing Flashflood Rainstorm**
- Jingjing Ge*, Hancheng Lu, and Wei Zhong (PLA University of Science and Technology, Nanjing)
- P-05** **Analysis of the Multi-Scale Structure of an Occluding MCS over Eastern Plain of North China**
- Xiaoyuan Yi* (Tianjin Meteorological Observatory, Tianjin / Nanjing University of Information Science and Technology, Nanjing), Zechun Li (National Meteorological Center of China, Beijing), Xuexiang Yao (Hebei Meteorological Bureau, Shijiazhuang), Hongyan Wang (Nanjing University of Information Science and Technology, Nanjing), and Xiaolei Sun (Tianjin Meteorological Observatory, Tianjin)
- P-06** **A numerical simulation of tropical cyclone genesis associated with two lower tropospheric vortices**
- Ryuji Yoshida* and Hirohiko Ishikawa (Kyoto University, Uji)
- P-07** **Impact of the Subtropical High on the Extratropical Transition of Tropical Cyclones over the Western North Pacific**
- Jin-Jie Song*, Yuan Wang, and Jianping Tang (Nanjing University, Nanjing)
- P-08** **Short-timescale process in a mature tropical cyclone as a response to anomalous heat fluxes**

Kosuke Ito*, Yoichi Ishikawa, Toshiyuki Awaji, and Yoshiaki Miyamoto
(Kyoto University, Kyoto)

P-09 Experiment on Application of Dropsonde Data in Forecasting Track of Typhoon Morakot

Cheng-Zhong Zhang*, Qi-Lin Wan, Zi-Tong Chen, Wei-Yu Ding, and Yan-Yan Huang (Institute of Tropical and Marine Meteorology, Guangzhou)

P-10 The internal structure study of one devastating rain band in Morakot typhoon from polarimetric/Doppler radar analyses

Yu-Shuang Tang* and Tai-Chi Chen Wang (National Central University, Jhong-Li)

P-11 Simulation of Typhoon Rananim (2004) with an Updated High-Resolution Regional Atmospheric Model

Rui Cheng*, Rucong Yu (Institute of Atmospheric Physics, Chinese Academy of Sciences, Beijing), Yuqing Wang (University of Hawaii, Honolulu), and Yunfei Fu (University of Science and Technology of China, Hefei)

P-12 Interactions between Orographic Convection and Mountain Waves in the Landfalling Typhoon Nari (2001)

Xiao-Dong Tang (Nanjing University, Nanjing) and **Ming-Jen Yang*** (National Central University, Chung-Li)

P-13 Effect of Environmental Flow on Boundary Layer Wind of Landfalling Tropical Cyclones

Xiao-Dong Tang and **Zhe-Min Tan*** (Nanjing University, Nanjing)

P-14 The Effect of Urban Area on a Heavy Rainfall Event over Tokyo on August 5 2008

Kazuyoshi Souma*, Kengo Sunada, Tadashi Suetsugi (University of Yamanashi, Kofu), and Kenji Tanaka (Kyoto University, Uji)

P-15 Spatial and Temporal Characteristics of Lightning Activity over South Korea in 2002-2008

Hong-Mok Park, Sung-Hwa Jung, and Gyuwon Lee* (Kyungpook National University, Deagu)

P-16 Objective Prediction Scheme for Warm Season Afternoon Thunderstorm under Weak Synoptic Forcing in the Taiwan Area

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