

The 3rd Research Meeting of Ultrahigh Precision Meso-Scale Weather Prediction

Date/Time : March 21, 2013 (Thu) 09:00-17:30

Venue : Large Conference Room, Nichii Gakkan Kobe Port Island Center

9:00-9:20 Opening Session

Opening Address **Akihide Segami** (MRI)

Strategic Programs for Innovative Research (SPIRE) Field 3 **Tatsushi Tokioka** (JAMSTEC)

Super high accuracy mesoscale weather prediction **Kazuo Saito** (MRI/JAMSTEC)

09:20-10:35 Development of cloud-resolving data assimilation systems Chair: **Tadashi Tsuyuki** (MRI)

Challenges in Data Assimilation for Mesoscale Convective Systems **Tadashi Tsuyuki** (MRI)

The new operational high-resolution regional NWP model at JMA **Hisaki Eito** (JMA)

Development of New NHM-4DVAR unified with JNoVA **Takuya Kawabata** (MRI)

Development of nonhydrostatic meso 4D-VAR data assimilation system **Kosuke Ito** (JAMSTEC)

Doppler radar data assimilation using CRESS-3DVAR system for the supercell storm observed around Tukuba city on 6th May 2012. **Shingo Shimizu** (NIED)

Neighboring Ensemble-based variational assimilation scheme for a Cloud-Resolving Model Kazumasa Aonashi and **Seiji Origuchi** (MRI)

10:35-10:50 Break

10:50-11:20 Convective scale ensemble-based data assimilation and forecasting: Recent progresses at CAPS (Keynote) **Ming Xue** (University of Oklahoma)

11:20-12:50 Development of a regional cloud-resolving ensemble analysis and forecasting system

Chair: **Hironu Seko** (MRI/JAMSTEC)

Development of a regional cloud-resolving ensemble analysis and forecasting system/Ensemble experiments of Tsukuba tornado using a nested-LETKF system **Hironu Seko** (MRI/JAMSTEC)

Data assimilation experiment on the K computer **Masaru Kunii** (MRI)

A mesoscale super-high-resolution modelling on horizontal convective rolls: The impacts of landuse and buildings **Guixing Chen** (Tohoku University)

Incremental LETKF Mesoscale Analysis System **Tohru Kuroda** (MRI/JAMSTEC)

Test of deterministic assimilation in NHM-LETKF **Duc Le** (MRI/JAMSTEC)

Multi-scale treatment in Ensemble-based data assimilation **Takemasa Miyoshi** (RIKEN AICS)

A study about optimization of NHM for using on K computer, and flash flood simulation for several small rivers in Kobe. **Tsutao Oizumi** (JAMSTEC)

12:50-14:00 Lunch

14:00-14:10 Address **Tetsuyuki Muramatsu** (MEXT)

14:10-17:00 Development and basic research for the ultrahigh precision regional models

Chair: **Fujio Kimura** (JAMSTEC)

Future development for the ultrahigh precision regional models **Fujio Kimura** (JAMSTEC)

14:20-14:50 How to develop the physics algorithms in atmospheric models (Keynote) **SongYou Hong** (Yonsei University)

14:50-15:15

Development of Euler-Lagrangian Debris Flow Modeling using parallel computation **Yosuke Yamashiki** (DPRI)

The 100-m mesh simulations of cumulus convection over the tropical ocean during the active phase of MJO **Tetsuya Takemi** (DPRI)

15:15-15:30 Break

15:30-17:10

Development of cloud resolving model with multi-dimensional bin- microphysics **Akihiro Hashimoto** (MRI)

Development of new binned cloud microphysics model based on multi-dimensional bin method **Kentaro Araki** (MRI)

Development of a bulk parameterization scheme of warm rain using results of a bin microphysical model for RICO case **Kozo Nakamura** (JAMSTEC)

Applying Mellor Yamada-type turbulent closure for "Terra Incognita" **Junshi Ito** (AORI)

Numerical simulations of shallow clouds by SCALE-LES3 **Yosuke Sato** (RIKEN AICS)

Triple eyewall experiment of the 2012 typhoon "Bolaven" using cloud resolving ensemble forecast **Seiji Origuchi** (MRI)

Concentric Eyewall Structure of Typhoon Bolaven (2012) **Satoki Tsujino** and Kazuhisa Tsuboki (HyARC)

A very high-resolution simulation of the F3 Tsukuba Tornado on 6 May 2012 **Wataru Mashiko** (MRI)

17:10-17:30 General Discussion Chair: **Kazuo Saito** (MRI/JAMSTEC)

18:00-19:30 Banquet at Focus