

## First Day (22 May 2019, Wednesday)

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|--|---|---|--|
| 08:00 – 09:00  | <b>Registration</b>                     |   |  |
| 09:00 – 09:20  | <b>Opening Remarks</b>                  |   |  |
| <b>Session 1 : Verification of NWP models</b>          |   |   | <b>Session Chair:<br/>Young Kwon<br/>(KIAPS)</b> |
| 09:20 – 09:40  | 1.1                                     | The forecast skill horizon  | Roberto Buizza<br>(SSSA)                         |
| 09:40 – 10:00  | 1.2                                     | Update on NCAR’s MPAS global atmospheric model  | Jimy Dudhia<br>(NCAR)                            |
| 10:00 – 10:20  | 1.3                                     | Updates on the Korean Integrated Model (KIM)  | Song-You Hong<br>(KIAPS)                         |
| 10:20 – 10:50  | <b>Group Picture &amp; Coffee Break</b> |   |  |
| 10:50 – 11:10  | 1.4                                     | Ultrahigh resolution numerical weather prediction with a large domain and size dependency of simulated convective cores on model resolutions            | Kazuo Saito<br>(JMBSC)                           |
| 11:10 – 11:30  | 1.5                                     | Operational verification at the Met Office  | Philip Gill<br>(UKMO)                            |
| 11:30 – 11:50  | 1.6                                     | Diagnostic and verification at ECMWF  | Linus Magnusson<br>(ECMWF)                       |
| 11:50 – 12:10  | 1.7                                     | Verification for semi-operation of KIM at KMA   | Eunhee Lee<br>(KMA)                              |
| 12:10 – 13:20  | <b>Lunch Break</b>                      |   |  |
| 13:20 – 15:00  | <b>Poster Presentation</b>              |   |  |
| <b>Session 2: Predictability – Physics improvement</b> |   |   | <b>Session Chair:<br/>Jimy Dudhia<br/>(NCAR)</b> |
| 15:00 – 15:20  | 2.1                                     | Development of a sea ice growth model for better representing thermal structure of the Arctic sea ice   | Byung-Ju Sohn<br>(SNU)                           |
| 15:20 – 15:40  | 2.2                                     | Stochastic physics development at NOAA/ESRL for the NOAA Unified Forecast System (UFS)  | Jian-Wen Bao<br>(ESRL/NOAA)                      |
| 15:40 – 16:00  | 2.3                                     | NWP forecast of hydrological cycle in FV3 with the Grell-Freitas convection scheme  | Haiqin Li<br>(ESRL/NOAA)                         |
| 16:00 – 16:30  | <b>Coffee Break</b>                     |   |  |
| 16:30 – 16:50  | 2.4                                     | NCAM Land-Atmosphere Modeling Package (LAMP) for supporting the agricultural and forestry sectors in Korea: Version history and preliminary evaluations | Seung-Jae Lee<br>(NCAM)                          |
| 16:50 – 17:10  | 2.5                                     | Evaluation of new cloud and radiation schemes in ICON   | Martin Köhler<br>(DWD)                           |
| 17:10 – 17:30  | 2.6                                     | The CCPP: A framework for interoperable physics in atmospheric models   | Jimy Dudhia<br>(NCAR)                            |
| 17:30 – 17:50  | 2.7                                     | A comparative study of sensitivity of two microphysics schemes to aerosols across different resolutions   | Baode Chen<br>(STI)                              |
| 18:00 - 20:00  | <b>Welcome Dinner</b>                   |   |  |

## Second Day (23 May 2019, Thursday)

| <b>Session 3: Predictability – Land, ocean, and chemistry coupling</b> |   |   | <b>Session Chair:<br/>Huang-Hsiung Hsu<br/>(Academia Sinica)</b>              |
|--|---|---|---|
| 09:30 – 09:50  | 3.1   | Why we need an ocean model for atmospheric predictions:<br>Experiences from ECMWF                                       | Kristian Mogensen<br>(ECMWF)  |
| 09:50 – 10:10  | 3.2   | Coupling a high-resolution oceanic mixed layer model to AGCMs<br>improves Madden-Julian Oscillation simulation          | Huang-Hsiung Hsu<br>(Academia Sinica)   |
| 10:10 – 10:30  | 3.3   | Soil moisture data assimilation with satellite data<br>and the LETKF method   | Myong-In Lee<br>(UNIST)   |
| 10:30 – 11:00  | <b>Coffee Break</b>   |   |   |
| 11:00 – 11:20  | 3.4   | Current status of Korean Air Quality Modeling System  | Chul-Han Song<br>(GIST)   |
| 11:20 – 11:40  | 3.5   | Importance of meteorological inputs to predict, forecast, and<br>understand regional PM2.5 pollution in Northeast Asia  | Soontae Kim<br>(Ajou Univ.)   |
| 11:40 – 12:00  | 3.6   | Development of GRIMs-CCM and its applications   | Jae-In Jeong<br>(SNU)   |
| 12:00 – 13:30  | <b>Lunch Break</b>  |   |   |
| <b>Session 4: Predictability – Climate application</b>                 |   |   | <b>Session Chair:<br/>Baek-Min Kim<br/>(PKNU)</b>                             |
| 13:30 – 13:50  | 4.1   | Dynamical core in atmospheric model does matter in the simulation<br>of Arctic climate                                  | Baek-Min Kim<br>(PKNU)  |
| 13:50 – 14:10  | 4.2   | Impacts of Arctic-extratropic teleconnection<br>on wintertime seasonal climate forecasts                                | Jee-Hoon Jeong<br>(CNU)   |
| 14:10 – 14:30  | 4.3   | KIOST Earth system model development for CMIP6  | Young Ho Kim<br>(KIOST)   |
| 14:30 – 14:50  | 4.4   | Dominant variability related to predictive skill<br>in S2S time-scale over East Asia                                    | Yoo-Geun Ham<br>(CNU)   |
| 14:50 – 15:10  | 4.5   | Parameterizations of 3-D radiation-topography interaction and deep<br>convection for Taiwan Earth System Model (TaiESM) | Wei-Liang Lee<br>(Academia Sinica)  |
| 15:10 – 15:30  | <b>Coffee Break</b>   |   |   |
| <b>Session 5: Plenary Discussion</b>                                   |   |   | <b>Session Chairs:<br/>Young Kwon<br/>(KIAPS)<br/>Jimmy Dudhia<br/>(NCAR)</b> |
| 15:30 – 16:30  | Group discussion  |   |   |
| 16:30 – 17:30  | Presentation to overview the topics in the group discussion |   |   |
| 18:00 - 20:00  | <b>Dinner</b>   |   |   |

## Third Day (24 May 2019, Friday)

### Session 6: Future Efforts and Wrap-up Discussion

**Session Chairs:**  
**Young Kwon**  
**(KIAPS)**  
**Jimmy Dudhia**  
**(NCAR)**

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|---------------|--------------------|--|
| 09:00 – 10:00 | 6.1                | Wrap-up discussion                           |
| 10:00 – 12:00 | 6.2                | Steering committee meeting (Invitation only) |
| 12:00 – 13:30 | <b>Lunch Break</b> |  |
| 13:30 – 16:00 | 6.3                | Individual discussion for future efforts     |