

**P7      Simulation of severe local rainfall events by assimilating high resolution radar data into WRF model by 3DVAR method**

**Takada, Nozomu**, *Meteorological Engineering Center Inc., Japan*, Yuusuke Tanaka, *Japan Agency for Marine-Earth Science and Technology, Japan*, Shuichi Ikebuchi *Meteorological Engineering Center Inc., Japan*, Eiichi Nakakita, *Disaster Prevention Research Institute Kyoto University, Japan*

We simulate severe local rainfall events, which occurred in Kinki region of Japan with WRF Ver.3.6. X-band polarimetric (multi parameter) RADar Information Network (XRAIN) data (radar reflectivity and radial velocity) is assimilated into WRF model by 3DVAR method. XRAIN has a space resolution of 250m and a time resolution of 1 minute. Calculated prediction lead time is until 3 hours ahead and spatial resolution is 1km. Calculated precipitation with assimilation and without assimilation are compared with XRAIN observation. Results are as follows;

- 1) By assimilating high resolution radar data into WRF model, accuracy of calculated precipitation is improved
- 2) Effects of the assimilation continue until 2 hours ahead.