

## Ensemble forecast experiments of tornadoes occurred on 6th May 2012 using a nested-LETKF system

Hiromu Seko<sup>1\*</sup>, Kazuo Saito<sup>1</sup>, KUNII, Masaru<sup>2</sup>, TSUYUKI, Tadashi<sup>2</sup>, MIYOSHI, Takemasa<sup>3</sup>

<sup>1</sup>Meteorological Research Institute/JAMSTEC, <sup>2</sup>Meteorological Research Institute, <sup>3</sup>RIKEN

This presentation is regarding the tornadoes that occurred on 6th May 2012. Some research has already been carried out using Doppler radar data and outputs of the numerical forecast from this event. The analysis of the Doppler radar data showed that the tornadoes occurred in super cell convections. Low level warm moist airflow was supplied into the convections. An intense downdraft from the western sides of the convection cell triggered the tornadoes. If an ensemble forecast was applied to this event, we could obtain the probability of the outbreak of super cell convections and tornadoes. The several scenarios provided by an ensemble forecast also give us the factors that influence the outbreak and duration of tornadoes. In this presentation, the results of an ensemble forecast by the nested-LETKF system will be presented.

Keywords: Ensemble forecast, Data assimilation, Tornado