Title: The resent progress of NICAM-LETKF forecast system

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A near-real time weather forecast system based on a data assimilation system of Local Ensemble Transform Kalman Filter (LETKF, Terasaki and Miyoshi 2017, Kotsuki et al., 2017a, b) for the Nonhydrostatic ICosahedral Atmospheric Model (NICAM, Satoh et al., 2017) called NEXRA is developed by the collaboration of JAXA, RIKEN, and the University of Tokyo. The operational system with horizontal resolution at 112 km and the data is available on the website (https://www.eorc.jaxa.jp/theme/NEXRA/index_j.htm) . At present, the operational system provides 5-day forecast every 6 hours. However, this forecast system faces limitations to catch the characteristics of coming severe weather systems due to the horizontal resolution is too coarse to revolve mesoscale systems. As the first step to make this forecast system better, the resolution has been changed to 14 km and the single moment cloud microphysics scheme (NSW6, Tomita 2008) is used. In this presentation, we show how the prediction skill is changed by analyzing the heavy rain event occurred in the Yakushima Island in 18th May, 2019.