

Data assimilation and forecast experiments for the record-breaking rainfall event in Japan in July 2018 with NICAM-LETKF at 112-km and 28-km resolution

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In July 2018, the active Baiu front caused record-breaking rainfalls and disasters in broad areas in western Japan. This study performs data assimilation and forecast experiments using the NICAM-LETKF system at 112-km and 28-km resolution with 32 ensemble members. We assimilated conventional observations and advanced microwave sounding unit-A (AMSU-A). The 28-km resolution experiment outperforms the 112-km resolution experiment in terms of the location and the intensity of the heavy rainfall.