

Precipitation nowcasting with Phased-Array Weather Radar: a case of July 2018 record-breaking rainfall in Western Japan

Shigenori Otsuka (shigenori.otsuka@riken.jp)
RIKEN, "Center for Computational Science

The Phased-Array Weather Radar (PAWR) can observe the whole sky much more frequently and densely than the conventional parabolic-antenna radars. At RIKEN we have been operating an optical-flow-based precipitation nowcasting system with a PAWR since July 2017.

On 4-7 July 2018, a Baiu front caused torrential rains in Kansai area, Japan. During this period, a PAWR installed at Kobe Branch of the National Institute of Information and Communications Technology successfully captured details of the rain system, and our three-dimensional precipitation nowcasting system produced 30-second-update 10-minute predictions at 250-m resolution. In this presentation we will show preliminary results on the verification of the nowcasts during this event.