



## **Observation impact in short-range ensemble forecasts**

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Observation impact assessment offers a great potential for convective-scale data assimilation. It provides information on the contribution of various observations to the observing system and is crucial for the refinement of the observing network as well as the data assimilation system. In the framework of the Hans-Ertel Centre for Weather Research (HErZ), a method for an ensemble-based approximation of observation impact using an observation-based verification metric was developed over the past years. Instead of the subsequent analysis, the method uses subsequent observations for verification that are considerably more independent from the forecast.

Recently, the method was adapted to use independent observation types for verification. Results of the impact assessment using radar-derived precipitation observations for verification are presented. Furthermore the impact time of different observation types is investigated. The study covers the high impact weather period in summer 2016 using the pre-operational convective-scale ensemble system of Deutscher Wetterdienst (KENDA/COSMO-DE).