



Hans-Ertel-Centre (HErZ) for Weather Research, Data Assimilation Branch

M. Weissmann (1) and T. Janjic (2)

(1) Hans-Ertel-Centre for Weather Research, Data Assimilation Branch, LMU München, Germany, (2) Hans-Ertel-Centre for Weather Research, Data Assimilation Branch, Deutscher Wetterdienst, Offenbach, Germany

The HErZ Data Assimilation Branch is a university research group funded by the German Weather Service (DWD). It aims to perform fundamental research in order to advance the DWD's data assimilation and the ensemble prediction system. The primary focus is on convective scale data assimilation and the use of additional satellite observations. Furthermore the interplay of analysis and forecast uncertainty in the combined analysis and forecast ensemble system is examined with particular regard to regime dependence and impact time of observations.

Currently the following subprojects are conducted:

- Direct assimilation of SEVIRI visible and near-infrared reflectivity to improve the representation of clouds in the limited area COSMO-DE model
- Height correction of Atmospheric Motion Vectors using air- and spaceborne lidar observations
- Development of ensemble-based tools to estimate observation impact in COSMO-DE
- Representation of forecast uncertainty in the future convective-scale ensemble system
- Investigation of data assimilation methods in a hierarchy of simple models that resemble key features of convection

The poster provides an overview of the research group and presents selected highlights of the performed research.