



Assimilation of radar precipitation in the DMI-HIRLAM now-casting system - methodology and preliminary results

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Recent episodes of heavy rain and subsequent flooding in Denmark with large economical consequences have implied increased focus on very short range high quality forecasts of precipitation. The Danish Meteorological Institute (DMI) have therefore developed a now-casting system based on a dense network of surface observations combined with radar and satellite products available every 10 and 15 minutes. The rapid update cycles are initialized from a new three dimensional variational (3dvar) analysis every hour to employ the latest observations and forecasts extends 12 hours with output every 10 minutes to enable comparison with radar and satellite input. Model precipitation fields are nudged towards radar reflectivity derived precipitation by performing a dynamical adjustment of the wind field, temperature and humidity. The talk focuses on the basic methodology of including radar precipitation in the system and shows preliminary results. An accompanying poster displays more results.