



Description and Verification of a Short-range Ensemble Prediction System

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At the Danish Meteorological Institute (DMI), a short-range and high-resolution ensemble prediction system has been developed and verified for temperature, wind speed, and precipitation. This ensemble prediction system is now in operational use in Denmark. To comply with the development of advanced solar heating units using accurate forecasts of available solar heat, global and diffuse radiation have additionally been calculated as output from the ensemble prediction system as a mean of accessing the accuracy of the forecasts of the operational model. A description of the DMI ensemble prediction system and the ideas behind its construction concerning i) spatial and temporal resolution, ii) perturbation of initial conditions and iii) use of stochastic physics to simulate model uncertainties will be presented. By applying different measures of ensemble verification, the radiative output from the DMI ensemble prediction system will be verified against observations of global radiation.