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GLAMEPS: a HIRLAM/ALADIN probabilistic system. Development of convection permitting HarmonEPS

I.-L. Frogner and the GLAMEPS Team
Norwegian MeteorologicalInstitute, Oslo, Norway (i.l.frogner@met.no)

The Grand Limited Area Modeling Ensemble Prediction system (GLAMEPS) is intended for operational production as part of the cooperation between two European consortia for short-rang NWP, Hirlam and Aladin. The aim is to predict atmospheric features on spatial scales between synoptic scales, covered by global EPS, and convection-permitting scales. The challenge is to construct a well calibrated pan-European system for the short range by accounting for both initial state and model uncertainties. Model uncertainties are taken into account by using a small number of different models and versions. Initial state uncertainties are taken into account in two ways: By imported perturbations from ECMWF global EPS and by running different assimilation cycles in parallel. GLAMEPS has been running since March 2010 and the pre-operational version of GLAMEPS has been running since beginning of 2012. Results from this period will be given, and compared to ECMWF EPS. Results and/or plans for further refinement of the system will also be presented. In parallel to the development of GLAMEPS a convection-permitting ensemble system called HarmonEPS is also being developed. This is a system for the very short range (<36h) and 2.5 km resolution. The basic model is the non-hydrostatic Harmonie. The multi-model approach will be continued also for this scale, so both Arome and Alaro will be used. Depending on the progress of HarmonEPS experimentation, plans or preliminary results will be shown for a few test cases.