



A comparison of short-range forecasts from two Ensemble Streamflow Prediction Systems

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Two Ensemble Streamflow Prediction Systems were set up at Météo-France for a total number of 881 gauge stations. They are based on SAFRAN-ISBA-MODCOU (SIM), which is an hydro-meteorological model used at Météo-France to predict soil water content and river streamflows. The systems inputs came from ensemble forecasts from the European Centre for Medium-Range Weather Forecasts (ECMWF) Ensemble Prediction System for the first one, and from the PEARP (Prévision d'ensemble ARPege) EPS of Météo-France for the second one. Their capacities to better anticipate severe hydrological events were evaluated in a statistical way. The study area is France, and both systems were runned over a 569-day period, on a 2-day short-range scale. The comparison between both systems showed that the Ensemble Streamflow Prediction System based on the PEARP data was the best for small basins and floods, and the Ensemble Streamflow Prediction System based on the ECMWF data was the best for large basins and low flows.