



Medium-range Ensemble Streamflow forecast over France

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A long-range Ensemble Streamflow Prediction System was set up at Météo-France and is running in real time since September 2004. It is based on the hydrometeorological chain SAFRAN-ISBA-MODCOU (SIM). SIM is composed of a meteorological analysis system, a land surface scheme and a distributed hydrological model. The surface grid for the land surface model is 8x8km, while the hydrological model grid is variable (from 64x64 to 1x1 km) according to the orography and the presence of rivers. SIM predicts the streamflow at 881 stations, distributed over France. It is forced by the 10-day ensemble forecasts from the European Centre for Medium-Range Weather Forecasts (ECMWF) Ensemble Prediction System, which are then desaggregated on the SIM grid. A statistical analysis of the skill of this system over a one year period. Good results were showed for floods as well as for low flows. Moreover, some significant flood events from the past were studied and showed the interest of the use of hydrological ensemble predictions.