



Probabilistic discharge forecasting on small and medium size basins: an operational perspective

Nicola Rebora, Francesco Silvestro, and Luca Ferraris
CIMA Research Foundation

The forecast of floods related to intense rainfall events is one of the main themes of analysis in hydrometeorology and a key issue for Civil Protection systems. In this work we present a complete hydrometeorological probabilistic forecast system for small and medium size basins, designed for operational applications. The probabilistic approach allows to face the problems related to the reduced dimension of the basins and to properly account for uncertainty sources in the prediction chain. The presented system uses as input Quantitative Precipitation Forecasts (QPF) issued by a regional center which is in charge of hydrometeorological predictions in Liguria Region. Following the idea presented by Siccardi et al. 2005, single-catchment and multi-catchment approaches have been operationally implemented and studied.