Geophysical Research Abstracts
Vol. 14, EGU2012-8002, 2012
EGU General Assembly 2012

Predicting flash flood in small basins with a probabilistic multicatchment tool

N. Rebora, F. Silvestro, and L. Ferraris
CIMA Research Foundation, CIMA Research Foundation, Savona, Italy (nicola.rebora@cimafoundation.org)

Two severe flood events hit Liguria Region in less than 15 days: on the 25th of October the Cinque Terre area was interested by a severe Mediterranean storm that caused 9 deaths and only ten days later, on November the 4th, the city of Genoa was rocked by severe flash floods that killed six people.
During these events a hydrometeorological probabilistic forecasting system for small and medium size basins was operational at the Civil Protection Center of Liguria Region. This system shown excellent performances for these events by indicating, 24 hours in advance, the potential level of hazard associated to the forecasted events and helped the Liguria Region decision makers in issuing a timely and correct alert.
In this work we present in detail the operational outputs of the system provided during the Liguria events and the overall performance of the system in the period 2010-2011. We discuss strong points and drawbacks of probabilistic systems for decision-making under uncertainty conditions, such as their impact in terms of missing/false alarms and their actual effectiveness in driving the decision process in comparison with deterministic forecast in same conditions.