Dear Editor and Reviewer,

We are extremely sorry that the true meaning/intent of our paper was not fully captured by the reviewer.

We think that the scientific progress on the topic of Natural Hazards is not related only to new models, new methods, and new types of analysis, but also to the analysis of particular cases especially in the operational context where the scientific work must be used for practical purposes.

The paper analyzed a particular case, at least in our opinion. It is, in fact, the most important event of the last 10 years in terms of peak flow that was observed in the studied basin and it was completely unpredicted (not underestimated, but totally unpredicted). Probably we needed to explicitly mention this fact in the paper to highlight the significance of the event being reported.

We showed that in this particular situation the hydrological nowcasting chain represented with a certain degree of reliability the occurring flood event, while the other forecasting systems based on NWPs failed. Therefore, this was the only tool in the hand of the forecaster which predicted what would have occurred, albeit with a limited anticipation time. Moreover, we tried to suggest some ways of exploiting new technologies in order to improve the use of scientific tools/systems. These new technologies could be considered part of a scientific tool/system since they help to improve the efficiency of the forecasting system. Finally, we tried to provide evidence, in the conclusion (maybe we needed to expand on this part a bit further) of ways that these kinds of nowcasting chains together with new technologies could help to avoid (or reduce) possible legal consequences for the forecasters and decision makers which may arise as a result of the failure of the Forecast Systems that are based on NWPS.

We thought that collectively in all these elements there is a certain level of novelty, maybe not in any single one, but when considered together, their mutual influence, and their consequences. This is because we believe that science must ultimately help and support human life and activities especially in the fields of Flood Forecasting for Civil Protection purposes and generally, in dealing with natural hazards. We believe that science dealing with natural hazards must also consider these aspects since they have significant operational consequences.

Notwithstanding, we accept the critique of the reviewer, but we also take the opportunity to ask him/her to reconsider his/her judgment and view the paper from another perspective. We are also open to any suggestions that would help to highlight the cited elements (particular cases, support of new technologies, connection of the first two elements with legal/social consequences) in order to bring out the real meaning/intent of the paper.

With regard to the specific points listed by the Reviewer we provide the following responses:

1) Yes, we partially agree with the reviewer even though we believe it is more a question of how the results are shown and what is the purpose/goal of the work. One can certainly use, for example, the peak flows to build a probability distribution. However, the spaghetti plot is a common way to present probabilistic as well as ensemble system forecasts even if it doesn't explicitly provide probabilities. In some cases, one may be interested in the fact that a small number (or even one) of the events exceed a certain threshold. Effectively we can state that, in this case, we are using the chain as an ensemble system, this should probably be highlighted in the manuscript.

2) The verifications carried out in Silvestro and Rebora (2012) were done using various methods: verification on the ensemble mean, and box and spaghetti plot representations (the latter two

methodologies have a probabilistic connotation). The issue of evaluating the skill of probabilistic forecasts is certainly interesting, but is not one of the objectives of the paper. From an operational point of view, there is always a degree of subjectivity in the evaluation of a probabilistic forecast. For example: If there are 100 streamflow ensemble members, 98 indicate that nothing is going to occur, while 2 indicate that an alarm threshold will be exceeded (the probability is low, i.e. < 2%). What must the forecaster do? It depends on how much risk he/she wants to assume. And, after the event has occurred, if the threshold is exceeded by the observations, did the forecast chain work well? The answer could be: i) Yes, 2 scenarios forecasted the reality or ii) No, the probability was too low. Certainly, if a deterministic system is used the forecaster must be really lucky, hoping that the system forecasted the "right" scenario; probably it is simpler to be interpreted, but the amount of information is generally less than when using a probabilistic (or ensemble) system.

3) Looking at Figure 4, at every time-step we took care to always report the case where only observed rainfall is routed with the rainfall-runoff model.

4) We certainly can relax the statements highlighted by the reviewer. However, we do not completely agree with the analysis of the referee. We, in fact, always refer to intense events at small spatial scale in our work (within the order of magnitude of 10-100 km^2), and not to the generic skill of NWPSs. It is well known/documented (and operationally experienced by forecasters) that NWPSs often fail to predict these kinds of events (especially from the point of view of the precipitation amount – QPF- and its localization) because they are often triggered by very local scale phenomena that are not (at least actually) typically modeled and simulated by the common meteorological models. Operational NWPSs do not structurally forecast most of these kinds of events. This certainly doesn't mean that in general "Numerical Weather Prediction Systems (NWPS) and Ensemble Prediction Systems (EPS) do not allow for the prediction of precipitation with sufficient accuracy". The cited articles Siccardi et. al (2005) and Silvestro et al. (2011) proposed methodologies to deal with this problem in hydrological forecasts.

5) We can certainly review the paper, probably it still contains some errors and sentences that need language revision. It will be corrected by the third author, who is a native English speaker.

6) This part could be improved.

7) Yes, it is a technical support. However, as mention before, we tried to consider it from an operational perspective as a tool to improve the efficiency of the forecast/nowcast. New technologies are considered as part of a system to update as quickly as possible decision makers and thereby reducing the risk of social/legal consequences.