Hazard assessment nowcasting based on European radar mosaics

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The presented work explores the results of radar-based nowcasting at European scale with the mosaics produced within the EUMETNET project OPERA (www.opera.eu).

These 8-hour nowcasts (with a resolution of 4km and 15 minutes) have been used to identify and anticipate potential hazards induced by precipitation. Hazard assessment is done based on two approaches: (1) the point values of accumulated precipitation (hazard assessment is based on the regional thresholds established within the EUMETNET project EMMA –www.meteoalarm.eu-); and (2) the rainfall aggregated within the catchment upstream of each point to assess the potential hazard associated with the catchment-integrated rainfall (that here is used as an indicator of potential flash flood affecting each point of the domain).

In this work we present the results of the evaluation of the nowcasting system during summer and fall 2013, not only in terms of point and regional rainfall forecasts, but in terms of the skill in forecasting the hazard levels as well.