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# {Synoptic ingredients associated to flash flood producing storms}

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In the framework of the European project FLOODsite, Nuissier et al. (2008) and Ducrocq et al. (2008) analyzed three flash-flood events in France and highlighted the main atmospheric factors associated to the mesoscale triggering and the stationarity of the convective activity. High resolution simulated fields were used to identify common factors for these 3 events.

Within the framework of the European project HYDRATE, this contribution aims at generalizing our understanding of the atmospheric processes associated to flash flood by the use of weather regimes.

The objectives are therefore twofold: 1) for the Cévennes-Vivarais region in the South-East part of France, provide a weather type classification; 2) identify how the meteorological events which led to the 30 flash-flood events are distributed within the classification. Then, for each weather type and based on the ERA40 fields, provide composite mean fields and analyze the synoptic fields such as: vertically integrated moisture flux, wind fields, etc ...

This contribution highlights the impact of the choice of the geopotential altitude to built up the classification. Several classifications are compared and the resulting composite fields show different behaviours.