

## **A study of a very heavy precipitation case in Basque Country: the 18th september 2009 event.**

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In this work a study of a very heavy precipitation case in Basque Country is presented. This event is studied considering synoptic and mesoscale features. In order to characterize the synoptic environment during this episode, different synoptic maps are analyzed; 500 hPa and 850 hPa topographies, sea level pressure, some instability indexes, dynamic instability and other relevant parameters are taking into account.

During this event precipitations are registered for several consecutive days. The major precipitations take place in September 18th, above all the first half of the day. Very abundant rain accumulations are measured in, practically, whole territory, excepting the western border of the Basque Country. Many stations of the Biscay coast register quantities above the 100 mm, remarking Almike with 228.1 mm.

During the 16th day a Cut Off Low (COL) pass over the Basque Country towards the northwest of Iberian Peninsula. From the second half of 17th day, came back, with an opposite track. During the 18th the COL are located over the Basque Country, moving slowly towards the south of France. The humid air contribution due to the north winds in low levels is added to the dynamic instability.