

## **A major rainfall event in Apulia region observed by newly installed C band radar of RIVONA Project**

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A major hydro-meteorological event hit the Apulia region of southern Italy from November 30 to December 3rd 2013. By coincidence the first of the two C Band research radars of the RIVONA Project few days before had been installed at Torchiariolo, and it was in condition of documenting the part of the precipitation system over Salento in its northward movement.

The relative low pressure area within the higher pressure was generating a cyclonic circulation capable of conveying warm humid air from south in a wide front generating perturbed weather from Sicily to Greece. While the front was progressing northward during the days the radar images were documenting the mesoscale structure of the system embedding convective cells in a general stratified structure.

The analysis is based on the large scale synoptic situation, radio-soundings, satellite images, but the radar images significantly complemented the elements from the other sources.

The polarimetric radar data were used to identify the hydrometeors types.