



## **Verification of the algorithm for hail detection in Regione Piemonte, from Doppler C-band radar, using ground hail damage reports for 2005**

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North-western Po valley in Italy is often interested by large hail during summer, with damages to crop areas. The region is monitored by two C-band Doppler polarimetric radar managed by ARPA Piemonte: currently the probability of hail (POH) is estimated from radar reflectivity data and GTS - station Cuneo Levaldigi radiosounding, following the classical method of Waldvogel et al. (1979).

The aim of this study is a verification of hail detection algorithm for 2005, using ground damage report from agricultural consortium in Regione Piemonte. Moreover a detailed analysis of relevant event is carried out comparing reflectivity-based POH with particle identification results from a polarimetry based fuzzy logic algorithm.