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Analysis of severe convective events from two operational dual polarisation doppler radars

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In this paper an analysis of convective episodes (20 May 2003) is carried out in order to highlight the attenuation effects at C band and its consequence on the rainfall field estimation. Here we report a collaborative study based on two polarimetric radars in the Po valley, Italy. Unusually, the radars are only about 90 km apart, though operated by the same authority.

An hydrometeor classification scheme, developed at the National Severe Storms Laboratory (USA) is used in order to describe the different microphysics how it is detected from the different systems. The work will be focused on the reconstruction of the 3D structure of the convective event analyzed, highlighting how the two radar systems "see" the storm from different point of view. Further the two observations will be used for correct the attenuation phenomena.