



## **The AdriaX Campaign: Meteo-Hydrological forecast and multi-radar observation in Central Adriatic**

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In the framework of the IPA Adriatic Cross-Border Cooperation Programme the ADRIARadNet project planned a field campaign held during September-December 2014 for the western Adriatic regions (Marche and Abruzzo-Central Adriatic Operational, CAO) and to be held on January-March for the eastern side (Croatia and Albania - Southern Adriatic Operational, SAO). For the CAO region the X-band mini Radars recently installed in Tortoreto (Abruzzo) and Cingoli (Marche) have been operationally tested and used for studying special events occurred during the campaign. Moreover, in the framework of this project a dedicated model chain (coupling meteo and hydro) has been developed and implemented for the two areas CAO and SAO; specifically WRF-ARW (Weather Research Forecast meteorological model) high resolution output has been used to force CHyM (CETEMPS Hydrological Model).

Several intensive observation periods (IOP) have been launched and among them the most relevant in terms of impact at the ground are presented in this study. During the IOPs radars data, measurements from surface stations and satellite data were collected together with operational forecast output to the aim of both verifying model performance and eventually to understand model failure and to study physical processes.

The impact of the radars data assimilation on the precipitation forecast will be tested for a case of the CAO region by using 3DVAR data assimilation for WRF-ARW. The results for the CHyM hydrological simulation will be also discussed.