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Convection initiated high impact weather in the western Mediterranean

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High impact weather events in the western Mediterranean basin mostly occur in autumn months from September to November. These events can provoke high precipitation rates which cause floods and landslips.
In autumn 2012 the international field campaign HyMeX (Hydrological cycle in Mediterranean Experiment) took place in the western Mediterranean. It provides a wide dataset to study such events. A very prominent mesoscale convective system - causing huge damage and several casualties - affected the Spanish, French and Italian Mediterranean coasts at end of September 2012. This event was not predicted satisfactorily by some of the numerical weather prediction models used during HyMeX. Therefore, our goal is to define the processes which led to these uncertainties.
We analyze the role of different convection schemes in the German COSMO-EU-model (horizontal resolution of 7km), including the recently developed stochastic "Plant-Craig scheme". Furthermore, a run with the convection permitting model COSMO-DE (horizontal resolution of 2.8km) is compared to the COSMO-EU runs.