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Assessment of Numerical Models using reflectivity data from the Radar Simulation Model.

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The ability of current numerical models to forecast the meso- γ -scale (2-20 Km) is being debated nowadays. These models can not resolve individual convective elements, but they can resolve organized mesoscale convective systems.

The verification of precipitation forecast is very difficult due to the its high variability in time and space. The Radar Simulation Model (RSM) uses forecast fields from a numerical model to simulate radar reflectivities. Thanks to the RSM, the differences between the observed reflectivity by the radar network and the simulated reflectivity by this model can be estimated. These data can be used to validate mesoscale models.

We will show a case of study to assess the performance of hydrostatic Hirlam and non-hydrostatic MM5 at very high resolution (0.05 degrees latitude x longitude) using RSM.