

**High Resolution Model-Satellite-Radar Space and Time Scale Cloud Organization: The Santa Maria Case Study.**

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**ABSTRACT**

This study describes an evaluation procedure of cloud time-space organization from high resolution model forecasts of mesoscale cloud organization events during the CHUVA Santa Maria. The Meso-NH model is a non-hydrostatic mesoscale atmospheric model developed by Laboratoire d'Aerologie and CNRM (France). Six golden days were selected to evaluate how the Meso-NH forecast the cloud field organization. This procedure and results should be viewed not as an evaluation specific to Meso NH, but a general methodology to evaluate the different scales in high resolution models. The Julian days, 327, 333, 335, 338, 339 and 345 were selected and studied. Model output was transformed into satellite brightness temperature and radar reflectivity. It will be presented the size and life cycle duration of cloud systems as observed for each observation device and the high resolution model. The results obtained so far open the perspective of an evaluation taking into account the cloud and rainfall organization and main scales. They show that cloud distribution as described by the high resolution model, has a larger population of small scale clouds than the one observed by satellite and radar. The perspectives of the use of these results will be discussed.