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Weather radar and the initialization of mesoscale models of severe weather

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The questions being addressed by the group are:

- 1 Does the initialization of the model with radar rainfall and radial velocity (as well as satellite cloud estimates) data lead to improved quantitative rain forecasts? Over what time scales?
- 2 How do the results above vary with the dominant meteorological processes being observed (Tropical Cyclones, convective thunderstorms, frontal and stratiform rain events)?
- 3 How do the results vary with the resolution of the model and the resolution of the input radar data?
- 4 Does any of this matter for hydrologists?

The results from a number of investigations using radar network data are presented which show that the initialization of the model with this data has a large impact on the predicted rainfall over mountainous terrain.