

## 1.26 THE HYMID PROJECT HYDROMETEORCLASSIFICATION IN THE ALPS

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In the last years, the weather radar network in Austria was upgraded to C-band dual-pol technology. On the basis of the dual-pol information, a hydrometeor classification will be developed to determine the precipitation type within the measuring volume. Special attention is given to (a) the detection of hail and the estimation of hail size, and (b) the estimation of the precipitation type which finally reaches ground level. The mostly alpine conditions in Austria, which complicate radar measurements on one side and frequently lead to substantial distances between the lowest radar beam and the surface on the other side, hereby pose an additional challenge.

The results shall finally improve the data quality as well as enable the generation of new radar products which improve downstream applications like weather warnings, weather forecasts and the analysis of precipitation amounts.

NWP data will be used to estimate the surface precipitation type from the measurements aloft. The benefit of Mode-S data to adjust NWP temperature profiles will be tested. Station data, spotter reports, insurance data and Mode-S data will provide comparative data to evaluate the results.

This work will be done within the three-year FFG project HYMID and is supported by the Austrian radar data provider Austro Control and the insurance companies Oberösterreichische Versicherung and österreichische Hagelversicherung.

An overview of the project with emphasis on the hail size estimation, the vertical hydrometeor type adaption, and the verification approach of the results will be presented.