



## **Sensitivity Estimations of Airborne and Ground-Based 35 Ghz Cloud Radars**

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During the field campaigns NARVAL, NARVAL2 and NAWDEX with the german research aircraft HALO as well as on the Barbados Cloud Observatory (BCO) similar magnetron based Ka-band radars have been used in airborne as well as ground based operations.

The comparison of the growing datasets fostered questions about the remaining uncertainties regarding radar calibration and sensitivity.

While the presentation of Ewald et.al. addresses the remaining uncertainties in the calibration especially of the airborne radar, this presentation focusses on estimating the sensitivity of the radars in different measurement environments. These are the airborne cloud radar on board of HALO as well as two different set-ups of ground based cloud radars operated at the BCO.

Cumulative frequency distributions of the radar retrieved reflectivity as well as different cloud statistics are used to assess and compare the sensitivity of the different radars. The effects of different data analyses on the sensitivity especially of the airborne radar are examined.