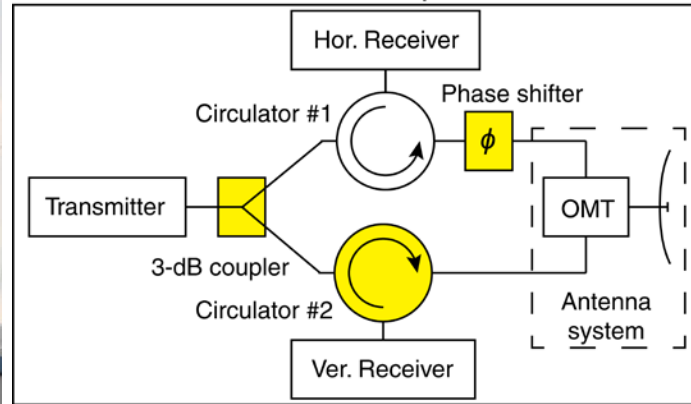
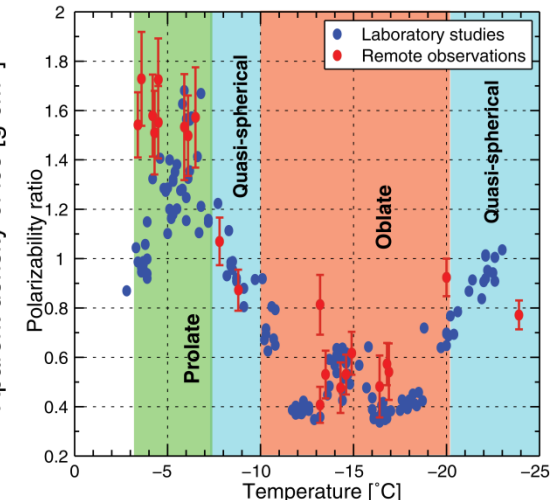
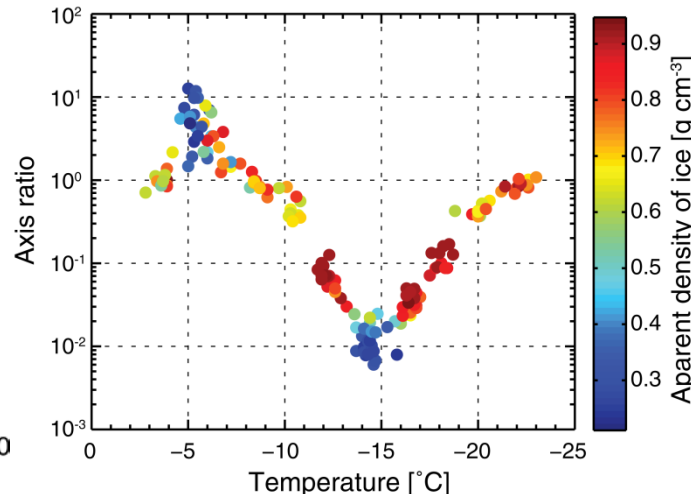
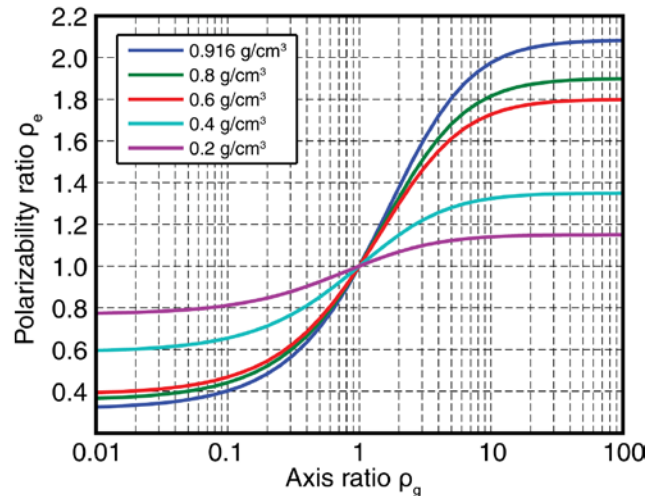


# 35-GHz cloud radar MIRA-35 with hybrid mode



- Based on LDR-configuration
- Comprehensive scanning cycle
- Calibrated differential phase shift
- Spectral polarimetric variables

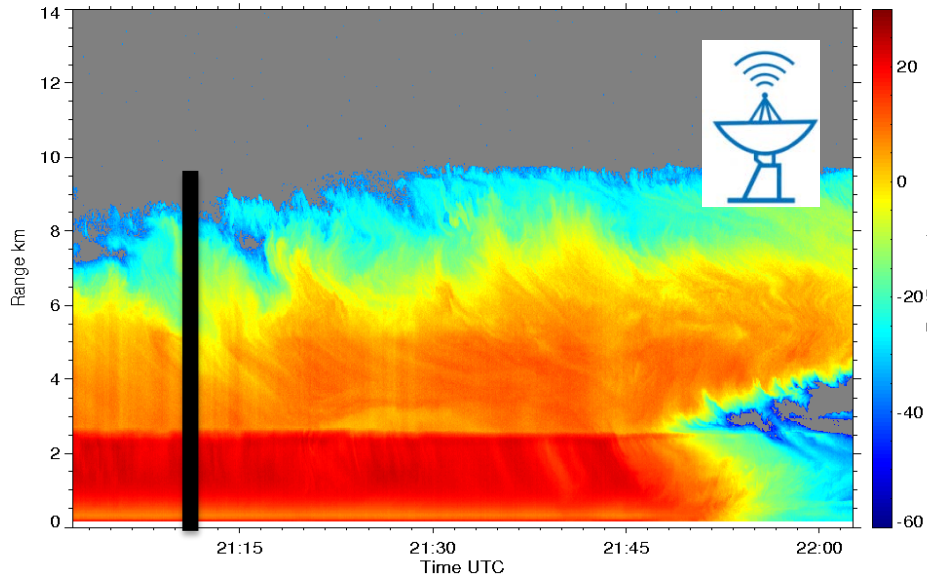
## Application: investigation of ice particles in mixed-phase clouds



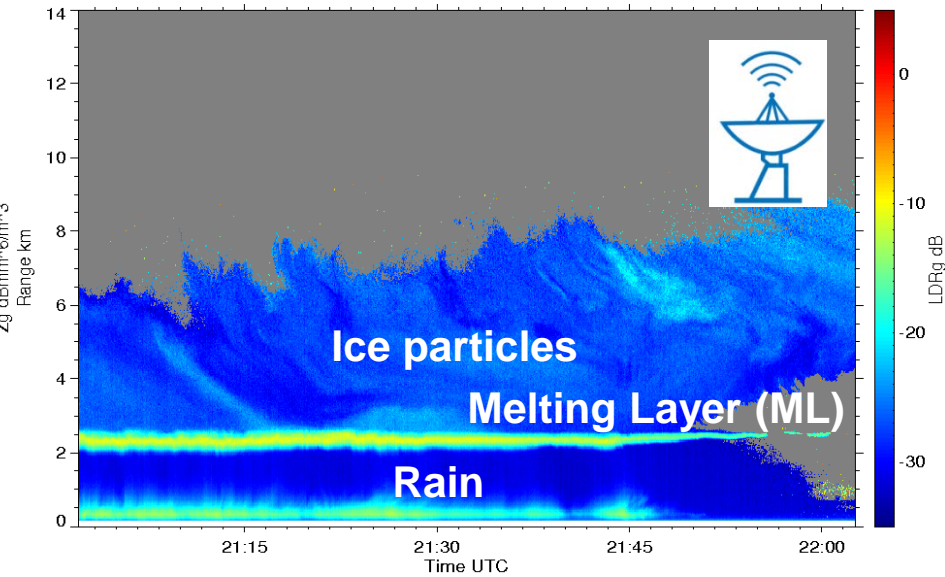
- Polarizability ratio depends on geometrical axis ratio and apparent ice density
- Good agreement of remote observations with laboratory studies

# Application: Investigation of deep precipitating clouds

Equivalent Radar Reflectivity Factor  $Z_e$  of all Targets 21:02 24.10.2014 - 22:02 24.10.2014 Cabauw LDR-Mode



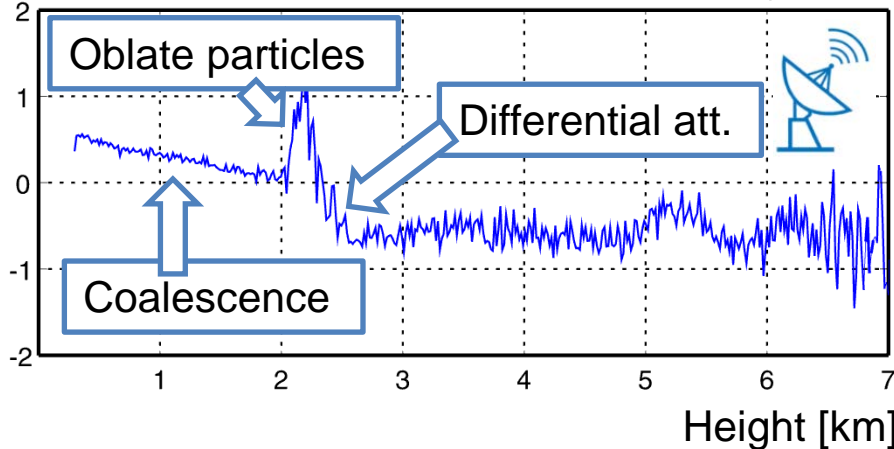
Linear De-Polarization Ratio LDRg 21:02 24.10.2014 - 22:02 24.10.2014 Cabauw LDR-Mode



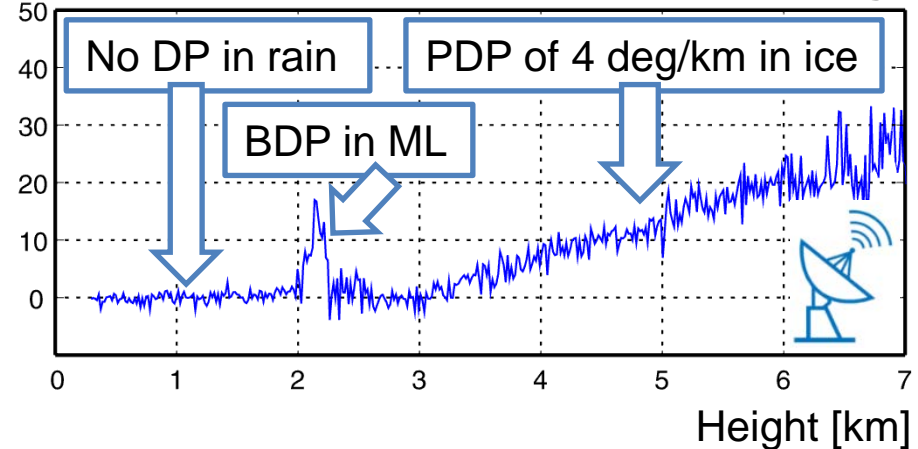
- Scanning is required

- Additional polarimetric variables are needed

Differential reflectivity [dB]



Differential phase (DP) [deg]



- Scanning hybrid mode MIRA-35 provides much more valuable information