



Supplement of

Retrievals of ice microphysical properties using dual-wavelength polarimetric radar observations during stratiform precipitation events

Eleni Tetoni et al.

Correspondence to: Eleni Tetoni (eleni.tetoni@dlr.de)

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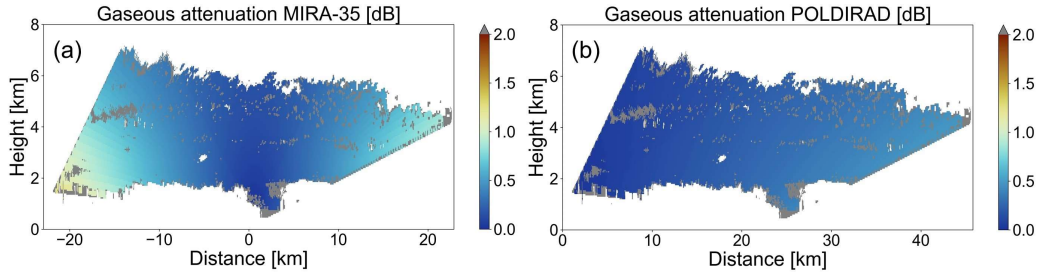


Figure S1: Gaseous attenuation estimation for Ka- and C-band for 30th January 2019 at 10:08 UTC using line-by-line formulas from ITU-R P.676-12 model (ITU-R P.676-12, 2019). Areas where ice masked and noise-filtered measurement values locate are plotted with grey color.

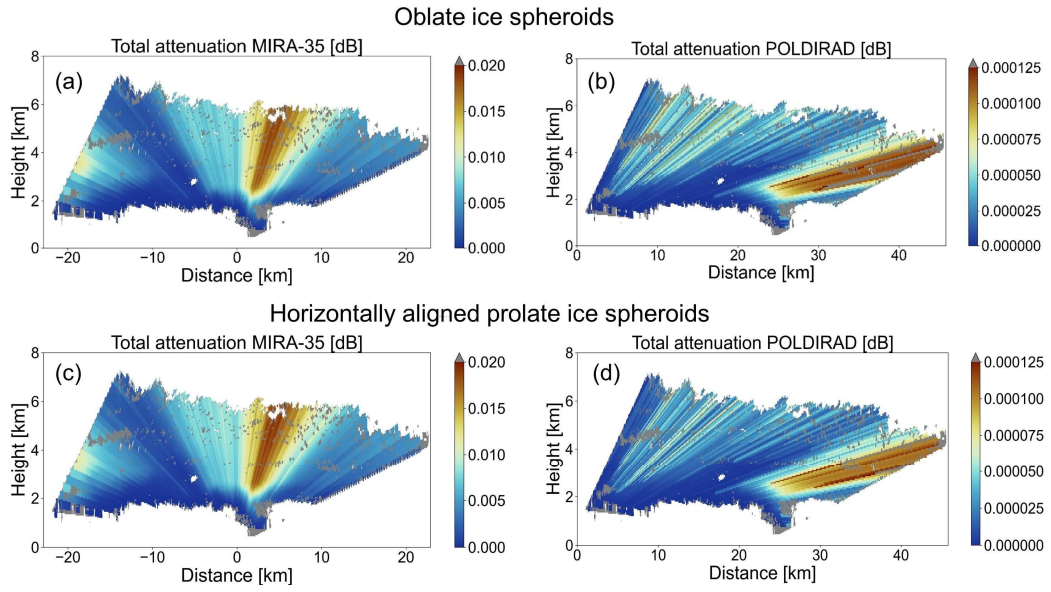


Figure S2: Total attenuation estimation for Ka- and C-band for 30th January 2019 at 10:08 UTC when (a, b) ice oblates and (c, d) horizontally aligned ice prolates as well as aggregates $m(D_{\max})$ (Yang et al., 2000) are used for the scattering simulations performed by using PyTMatrix (Leinonen, 2014). Areas where ice masked and noise-filtered measurement values locate are plotted with grey color.

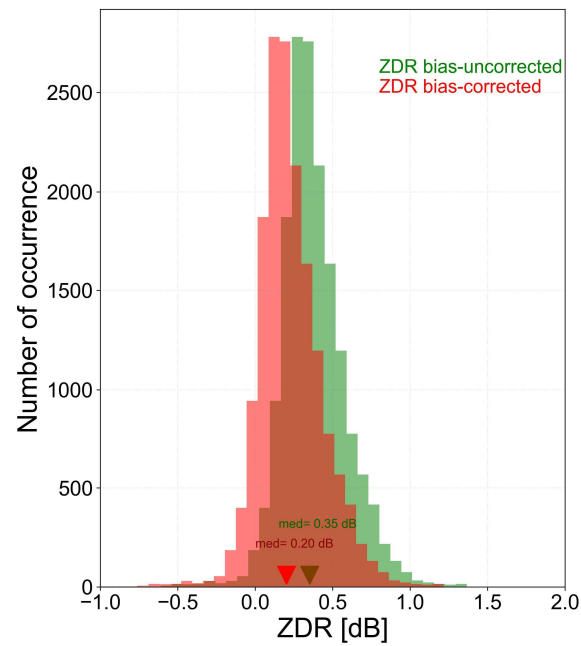


Figure S3: ZDR calibration validation for the period of this study following the Ryzhkov and Zrnica (2019) approach for dry aggregates with more relaxed Z_e ($Z_e > 20$ dBZ) and temperature ($-20\text{ }^{\circ}\text{C} < T < -7\text{ }^{\circ}\text{C}$) thresholds. With red and green color the histograms for corrected and uncorrected ZDR values, with respect to the ZDR bias as calculated on April 2019, are plotted.

25 References

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