

The manuscript by Deng et al. describes a method for monitoring trends in calibration of ARM cloud radars and the effect of wet radome attenuation (WRA). Both aspects are important because the number of cloud radars working at Ka band is increasing also because there are (at some extent), affordable radars commercially available that are used mainly for research purposes. Their performance should be monitored and the dependency of the impact on measured reflectivity factor of the WRA, which seems predominant over precipitation and gas attenuation must be predicted. The proposed method is based on a linear relation between the difference (in dB) between the Z_e predicted from disdrometer measurements at ground and the one radar measured by radar at 500 meters. With proper averaging, intercept and slope of the relation express the system bias and the rainfall-dependent WRA, respectively.

The current manuscript focuses on one ARM setup. It would be beneficial to generalize the method for different radars and disdrometers. Extending the method to laser disdrometers should not be too difficult, although laser disdrometer measurements are generally considered less accurate than video disdrometer measurements. Laser disdrometers should be available in the TRACER campaign. Extending the method to other types of radomes could be challenging, as radome attenuation depends on many factors, including the hydrophobicity of the radome material, its aging, and the geometry of the radome. The Gibbs formula and the works by Gorgucci et al., Frasier et al., and Schneebeli et al. (doi:10.5194/amt-5-2183-2012) refer to an X-band radar with a hemispherical radome, which might explain the different behavior observed in Figure 6.

Thank you for your thoughtful comments and suggestions. We appreciate your input on generalizing our method to different disdrometer measures and fitting functions.

1. **Generalization to Other Radars and Disdrometers:** We agree that extending the method to include different radar and disdrometer setups could broaden the applicability of our work. We will discuss in the revised manuscript with calibration offset calculation against both LDIAQUANTS and VDISQUANTS.

Explanation of Figure 6 Behavior: We appreciate your observation regarding Figure 6 and the possible explanation for the differences based on radome characteristics. In the revision, we will expand our discussion to address how the WRA fitting technique is sensitive to the fitting function of loglinear and $R^{1/3}$ relations and also to the LDISQUANTS and VDISQUANTS measurement. The following results are added in Figure 9.

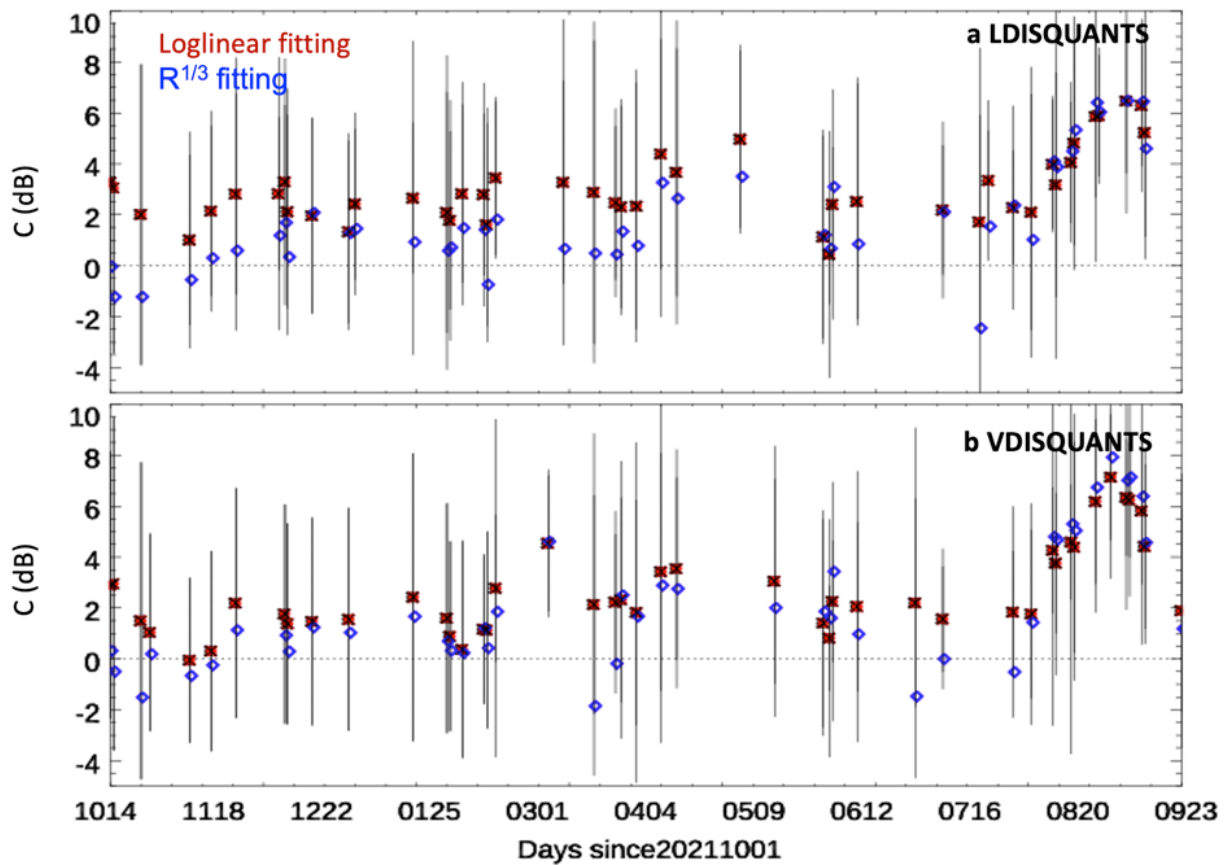


Figure 9 KAZR daily calibration offsets (C) from loglinear fitting with Equation 1 (red asterisk with black standard deviation bar) or the $R^{1/3}$ relation (blue diamond) against a) LDISQUANTS and b) VDISQUANTS data. The daily offsets are smoothed with 2-day window.

The daily calibration offsets show slight variation between LDISQUANTS and VDISQUANTS, indicating minor differences in disdrometer measurements. While the calibration offsets from the log-linear and $R^{1/3}$ fittings can differ by up to 2 dB, the overall trends remain similar, with a mean offset of approximately 2 dB before July 2022, increasing to around 7 dB afterward.

Minor Suggestions:

- Please replace “K” or “*K*” with “*k*” for specific attenuation to allow a better identification (e.g., in Figures 2a and 4a).

It is revised accordingly.

- In Figure 5, please remove the “corr” within the panels or improve the panels.

Now it is revised accordingly.

- The different uses of Z_e , which can be predicted or measured with different radars, can be confusing. Consider using superscripts to differentiate them, although this is just a suggestion.

Now the subscripts are added to differentiate them.