Reply on RC2

Jenna Ritvanen et al.

Author comment on "Complementarity of wind measurements from co-located X-band weather radar and Doppler lidar" by Jenna Ritvanen et al., Atmos. Meas. Tech. Discuss., https://doi.org/10.5194/amt-2022-193-AC3, 2022

We thank the reviewer for the kind comments and apt summary of the manuscript.

Regarding Figures 5, 9 and 11, the histograms were plotted using hexagons (matplotlib hexbin-function) instead of rectangles (hist2d-function) to improve visual representation. The hexagons in Figures 9 and 11 are stretched in the horizontal due to the different bin sizes. The horizontal bin size in Figure 5 for horizontal visibility is 2500 meters, in Figure 9 for cloud base height 50 meters, and in Figure 11 for precipitation intensity 0.015 mmh^{-1}. The bin sizes were selected by hand to achieve a reasonable balance between the resolution in the histogram and the number of bins, as using too many bins would have led to very low values (percentage of cases) in each bin, which again would have made the figures harder to interpret. Additionally, each figure was plotted to have approximately equal-sized x- and y-axes. As a result, in Figures 9 and 11 the hexagons are slightly stretched in horizontal, while in Figure 5 the hexagons appear symmetric.