

Title: Estimation of vertical profiles of raindrop size distribution and cloud microphysical processes in stratiform rainfall using vertical-pointing X- and VHF-band radars

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We greatly appreciate all your comments and suggestions for our paper. Our response is written in blue.

Thank you for the responses to my previous review. Overall, I have been satisfied with almost all of the authors' responses and greatly appreciate the efforts to clarify the manuscript. One exception is the unit shown in Figure 8 of the revised manuscript.

Is the unit for Figure 8 in the revised manuscript truly dBZ? At the very least, the “pr” in the GRIB filename should follow a naming convention related to precipitation, so this seems contradictory. Upon checking the filenames, I found the following information about the data format. At least on page 21, it appears that precipitation intensity is stored as a level value in this Japanese document. URL: <https://www.data.jma.go.jp/suishin/jyouhou/pdf/568.pdf>

Therefore, the unit in Figure 8 should be  $\text{mm h}^{-1}$ . Since I have not actually read the data you selected to confirm, I would like the authors to verify it again.

Thank you for pointing this out. As you noted, the raw data is provided in units of precipitation intensity [ $\text{mm h}^{-1}$ ]. However, because the original source is radar data, we converted the values to  $Z^*$  [ $\text{mm}^6 \text{m}^{-3}$ ] using the relation  $Z^* = 200R^{1.6}$ , and subsequently to dBZ, without explicitly stating this in the manuscript. We apologize for any confusion this omission may have caused. Accordingly, we have revised Figure 8, its caption (L448-449), and the main text descriptions (L432-435) to display the precipitation intensity in its original units [ $\text{mm h}^{-1}$ ].

Please ensure that the colour schemes used in your maps and charts allow readers with colour vision deficiencies to correctly interpret your findings. Please check your figures using the Coblis – Color Blindness Simulator (<https://www.color-blindness.com/coblis-color-blindness-simulator/>) and revise the colour schemes accordingly. => Figures 5, 10, 11

Prior to the previous submission, we verified the colors using a color blindness simulator and believed they met accessibility standards. Specifically:

- Figure 11 uses the "plasma" colormap, which is designed to be perceptually uniform and color-blind friendly.
- Figure 5 employs an orange and blue scheme to ensure high contrast.

On the other hand, we acknowledge that Figure 10 requires improvement. Accordingly, we have revised the colormap of Figure 10 by changing it from "rainbow" to "plasma".

We are truly grateful for your decision to accept the manuscript with corrections. Thank you again for your time and handling of our manuscript.

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