

Response to Referee #3

We thank the referee for their review. Below are the original comments in *italics* intermixed with our responses in normal text.

p. 4, l. 22: air density units?

p. 5, l. 1: surfaces → surface

p. 8, l. 6: Should it be “If $Z_{snow} \geq Z_{snow,lim}$ ” “?

p. 11, l. 19: version → versions

p. 12, l. 6: reflectivity it does → reflectivity, doing

p. 12, l. 9: loud → Cloud

Figure 6 legend, last line: mean bias, root → root

p. 19, l. 6: predecessor and → predecessor

We have implemented all suggested changes, except for the one related to the sign of the inequality for the snow depth. It is correct in the manuscript and is consistent with Versegny, 2012. If there is fractional snow cover and the snow depth is less than the limit, it is reset to $Z_{snow,lim}$.