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Atmospheric Measurement Techniques Discussions

Interactive comment on "Combined wind measurements by two different lidar instruments in the Arctic middle atmosphere" *by* J. Hildebrand et al.

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suggestion to include discussion on temperature effect and temperature comparison

We agree that this is an interesting topic but including temperature comparison is far beyond the scope of this manuscript which focusses on wind measurements by different lidar instruments.

page 4131, line 20 and accordingly Fig. 4: does black line consider altitude dependent temperature?

The black line takes the variation of temperature with altitude into account. If we would assume isothermal atmosphere, this line would be straight.

page 4133, line 27: "mean profile"

Maybe "mean" profile is confusing. We will use "undisturbed background" profile instead.

page 4135, last paragraph of Sect. 4.3: NWT has no bias problem?

Since the backscattered light from the NWT passes through a hole in the RFS, the signal of the NWT is not affected by a misalignment of the RFS.

page 4136, last paragraph of Sect. 4.4: speculative statements

We weak this statement as proposed by Anonymous Referee #1.

Interactive comment on Atmos. Meas. Tech. Discuss., 5, 4123, 2012.