The authors have responded adequately to my remarks in the previous review, but to my main remark No. 4 in what respects the statistical uncertainty of RALMO measurements. In the revised manuscript the authors state (page 4, lines 2-4 of the revised manuscript): "The mean statistical uncertainties associated with the retrieval of β_{aer} at 355 nm from Raman inversion techniques are typically estimated as 15 % in the PBL (Pappalardo et al., 2004)". However, the reference (Pappalardo et al., 2004) supposed to sustain this uncertainty value does not deal with instruments, but with the performance of algorithms faced to synthetic lidar data mimicking an instrument output. The quoted 15% figure refers to the typical statistical error yielded by the different algorithms when dealing with simulated raw signals coming from a typical atmospheric profile and with a given amount of noise yielding a mean signal-to-noise ratio of ~ 70 in the PBL. The mean statistical uncertainty cannot be based on this reference and the sentence must be removed of modified. I suspect, based on RALMO characteristics, that the typical uncertainty for the retrieval of β_{aer} in the PBL from its nighttime data will be lower than 15%.

Other minor issues are:

1. The authors use throughout the paper the same symbol, $\Delta\beta_{aer}$, to denote both the absolute difference and the relative difference between the aerosol backscatter coefficient retrieved from a lidar measurement and from COBALD. But in Eq. (3) $\Delta\beta_{aer}$ is defined unambiguously as absolute error. I suggest that for relative error another symbol is used. I'm sorry I didn't notice this in my previous review.

2. On page 14, lines 17-18 of the revised manuscript, the authors say, referring to the larger spread of relative β_{aer} differences above 3 km between CHM15K and COBALD compared to the relative differences between CHM15K and RALMO: "This again denotes the lower signal-to-noise ratio of CHM15K with respect to RALMO at high altitudes". But couldn't it be due also to the smaller values of β_{aer}^{COB} in the denominator when computing the relative error?