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Atmospheric Measurement Techniques Discussions

Interactive comment on "Depolarization ratio of Polar Stratospheric Clouds in coastal Antarctica: profiling comparison analysis between a ground-based Micro Pulse Lidar and the space-borne CALIOP" *by* C. Córdoba-Jabonero et al.

Anonymous Referee #2

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This paper compares data from two distinct plataforms (ground based and satellite) for the study of PSC I and PSC II types of clouds in the argentinian station: Belgrano II. The overall presentation is very well structured and written. The idea of comparing the volume depolarization δ^V between CALIOP and MPL-4 is new and the statistical methods to compare both of them were fairly good. In the text despite its fluency there are many references to numbers in different cases which became a little confusing for

the reader to follow which even though they are also shown in tables and some plots, I wonder if more plots were given or if those shown in the paper were split into different plots.
There are some issues and comments I would like to add:

Introduction - Lines 20 through 25
I would explicitly addd the temperature ranges these clouds occur.
Section 2.1.2
Was the vertical averaging applied to all height range in CALIOP dataset ?

General Comment
There is a fairly amount of discussion on the comparison analysis between CALIPSO and MPL-4. However the discrepancies found could be more deeply discussed since the authors simply discarded the differences due spatial inhomogeneity.

I suggest to exchange or add besides Table 2 by an histogram (number of occurrences) to show the cases due the CALIOP tracking distance, when that occurred seems to me irrelevant.

Figure 2
Please increase the inset fonts. Some of them are almost invisible, for instance χ Also in the caption "CALIPSO ground-track distance was (instead of is)

Figure 5
I think these panels could be split into more plots. Here they are too small to read and are too "piled up".

Interactive comment on Atmos. Meas. Tech. Discuss., 5, 8051, 2012.