Atmos. Meas. Tech. Discuss., doi:10.5194/amt-2018-317-RC2, 2018 © Author(s) 2018. This work is distributed under the Creative Commons Attribution 4.0 License.



Interactive comment on "Cloud base height retrieval from multi-angle satellite data" by Christoph Böhm et al.

Anonymous Referee #4

Received and published: 22 October 2018

This paper describes an interesting technique to infer cloud base height from MISR measurements within selected areas. The paper is well written. The technique is described well. I recommend the paper to be accepted for publication after some minor suggested additions and corrections listed below.

General comment:

The authors should describe better to which kind of cloud fields this method can be applied. The abstract states "it can be applied if some cloud gaps occur within the chosen distance of typically 10 km." However, cirrus are excluded in the evaluation, because it probably would not work on cirrus. I also do not expect the technique to work particularly well on areas dominated by deep convection and congestus, for example. Please discuss the expected limitations of the technique related to cloud types.

C.

Specific comments:

Page 7, line 7: I agree that MISR cloud top heights are probably superior to those of other passive satellite instruments, but not to those from active instruments, in particular lidar.

Figure 12: In the caption note that these are anomalies. Also add a Delta in front of the y-axis labels.

I thought the discussion of multi-layer situations on page 8 was interesting and I suggest to add some words about that in the conclusions.

Interactive comment on Atmos. Meas. Tech. Discuss., doi:10.5194/amt-2018-317, 2018.