

# ***Interactive comment on “A large-area blackbody for inflight calibration of an infrared interferometer deployed on board a long-duration balloon for stratospheric research” by Friedhelm Olschewski et al.***

## **Anonymous Referee #1**

Received and published: 15 May 2018

This paper describes a newly developed large-area blackbody which is planned to be equipped on a stratospheric balloon instrument. Although the specification and lab-test of the blackbody is well described, the current manuscript looks like too much technical, and it seems the content could be of interest to a rather limited range of readers. To increase the value of the paper for a wider area of the scientific community, I would recommend to add some more descriptions with respect to the following points:

(1) Please give a brief background-history about what kind of calibrators have been used in past similar instruments (for example, MIPAS Balloon)

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(2) Adding an introduction about the science objectives of balloon-borne GLORIA may help the readers to understand why careful radiance calibration is required. I understand that this paper does not aim at discussing scientific aspects of the GLORIA mission, but still I consider that any instrumental designs are optimized based on the scientific requirements and such information is important for readers. I could not follow well from where all the instrumental requirements' numbers (those summarized in Table 1) come from.

- Minor comments

p.1 L18: ...the German metrology institute", " the spectral and ...

p.4 Figure 2: if possible, please add the scale (length) on the close-up figure of pyramids.

p.7 Figure 5(a): please add some labels...it's hard to understand what exists in the experimental layout.

p.8 Figure 6: The vertical axis of figure may be expressed in celsius degree so that the comparison with Figures 4 and 7 become more easy.

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