Interactive comment on “Geophysical validation of temperature retrieved by the ESA processor from MIPAS/ENVISAT atmospheric limb-emission measurements” by M. Ridolfi et al.

Anonymous Referee #1

Received and published: 9 May 2007

Review of “Geophysical validation of temperature retrieved by the ESA processor from MIPAS/ENVISAT atmospheric limb-emission measurements”, by Ridolfi et al.

General comments:

This is a very useful paper. It is very comprehensive and thorough and will be of great interest to the research satellite community. It is suitable for publication in ACP.

I have two general comments and several specific comments which I hope the authors will address and, in my view, improve the paper.

I find the use of “ex-ante” and “ex-poste” errors very confusing. This terminology is not
standard and I would urge the authors to replace it with something more conventional.
Also, I urge the authors to consider cutting back some of the descriptions in the paper. An example is the preamble to section 6. Is all this detail necessary?

Specific comments (page and line numbers refer to the ACPD paper):

P. 5439:
L. 27: Specify the problem in ECMWF temperatures.

P. 5444:
L. 25: I do not understand what is meant by “tested against zero”. Please re-phrase.

P. 5452:
L. 4: The error introduced in this line does not seem to appear in Table 1. Could the authors define it?
L. 22: I may have missed something, but are the differences di(k) defined?

P. 5453:
L. 14: I think it would be clearer to write “10.5 km”.

P. 5471:
L. 22: I am not sure I understand the meaning of the difference 350+/−10 m. Are these the average differences in height of matching pressures for the MIPAS and ozone sonde profiles?

P. 5500:
Fig. 3: What are the horizontal and vertical lines?

P. 5507:
Fig. 10: I think the SPIRALE data in the left-hand panel are indicated by squares, not
circles.
P. 5511-5513:
Figs. 14-16: The panels are too small, and the information is difficult to see. I suggest re-drawing the figures.