

Dear Reviewer,

Thank you very much for your comments on our paper “Validation of GOMOS precision estimates in the stratosphere”. Below we present the replies to your comments.

Reviewer #2.

Minor comments

The comparison of the difference in sample variance with the difference in squared precision in Fig. 4 is shown for only 4 pairs of stars and the conclusion is made that there is perfect agreement for stars of visual magnitude less than 2. The use of the word “perfect” is certainly an overstatement and should be revised. Also, what are the criteria used to establish this agreement, i.e. a good uncertainly estimate, for stars of magnitude less than 2? (Note that this values changes to 1.9 as quoted later in the paper). It should be possible to do this same analysis for many pairs of stars and to show that the agreement becomes significantly worse at this point.

Authors:

We replaced “perfect” with “good”. Our quantitative characterization of “not dim” stars with realistic precision estimates was actually based on the analysis presented later in the paper (Figure 5 and the corresponding analysis and discussion). In discussion of Fig.4, we removed the criterion on visual magnitude, it is given only after presenting the analysis based on all stars.

Reviewer #2:

The speculation on page 2471 on the influence of the QBO is intriguing; however, without references to such a phenomenon from other literature, or further analysis of the GOMOS data set, which is definitely possible with essentially a decade of GOMOS data, this should probably be removed from the paper.

Authors:

In the revised version, this speculation is removed.

Reviewer #2:

Technical corrections

The use of parentheses in almost every sentence of the first paragraph is distracting and could be improved simply by using “such as” or simple rephrasing of the sentences.

We removed parentheses in the first sentence.

P 2462, line 4: No parentheses required for this list of references.

Corrected.

P 2462, Section 2: The name of this section is not clear, particularly with the use of the period.

We changed the title of this section into “Outlines of GOMOS precision derivation and characterization of retrieval quality”.

P 2472, line 27: “invisible” is not a good choice of word here – “insignificant” would be better.

Changed as suggested.