

## **Response to Reviewer:**

We thank the reviewer for their useful suggestions. Below, we have reproduced them and provided a response for each.

*This paper summaries some unique characteristics of solar cycle 23. I recommend publication but have a few questions/comments.*

*Among many unique points of the solar cycle 23, this paper focuses on only 2 points with no reasons, though papers are referred. A quick summary of the solar cycle 23 and the reason why you selected these 2 points in Introduction should be given.*

We have modified the text in the introduction to explain that our choice of these two points was based on the fact that they haven't been reported in the literature until now.

*Red curves in Figure 3 are hard to see, hence readers may not understand how  $T_o=1.8 \times 10^6 K$  matches observations best. Is this a general result for all CRs ?*

We have re-plotted Figure 3 with thicker (and now) white lines to make the coronal holes easier to see. As to the second question, unfortunately, we have only made comparisons for a few Carrington rotations. However, they, at least, do agree with the result for this CR.

*From Figure 4, we understand 'different magnetograms can have a profound effect on the quality of the solution.'. And ?*

We have added the sentence:

Therefore, care must be taken in choosing the boundary conditions and interpreting the results.

*It is hard for readers to see where the unipolar region is located. Additional explanations are needed.*

Unfortunately, because of limited space and a cited, recent publication on unipolar streamers, we weren't able to expand on this further. However, we do reference the submitted paper.

Finally, we took this opportunity to correct a few typos and upgrade one of the references.