

## ***Interactive comment on “Influence of the Earth’s ring current strength on the Størmer’s allowed and forbidden regions of charged particles motion” by Alexander S. Lavrukhin et al.***

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Received and published: 8 April 2019

We would like to thank Referee for the helpful comments on the paper!

Answers to the specific comments:

- 1) Grammar of phrases is corrected;
- 2) "South IMF" and "North IMF" are corrected to "southward/northward oriented IMF";
- 3) Variables and parameters used in the paper are introduced and explained in the text after the formulas, where they are introduced;

C1

4) Figure 8 and 9 are very similar, but different. Figures 8a and 9a are uploaded as Figures added to this comment and it can be seen, that the spatial extent of the allowed region of motion is larger at fig. 8a than at 9a. The difference also exists for fig. 8c and 9c. This is now mentioned in the text after figure 9;

5) The sentences about the effects of the ring current radius and external field on the Dst index are corrected;

6) Comments on the Tables 1 and 2 are added to the text.

Please see the edited version of the paper as the Supplement.

Please also note the supplement to this comment:

<https://www.ann-geophys-discuss.net/angeo-2018-104/angeo-2018-104-AC1-supplement.pdf>

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Interactive comment on Ann. Geophys. Discuss., <https://doi.org/10.5194/angeo-2018-104>, 2018.

C2

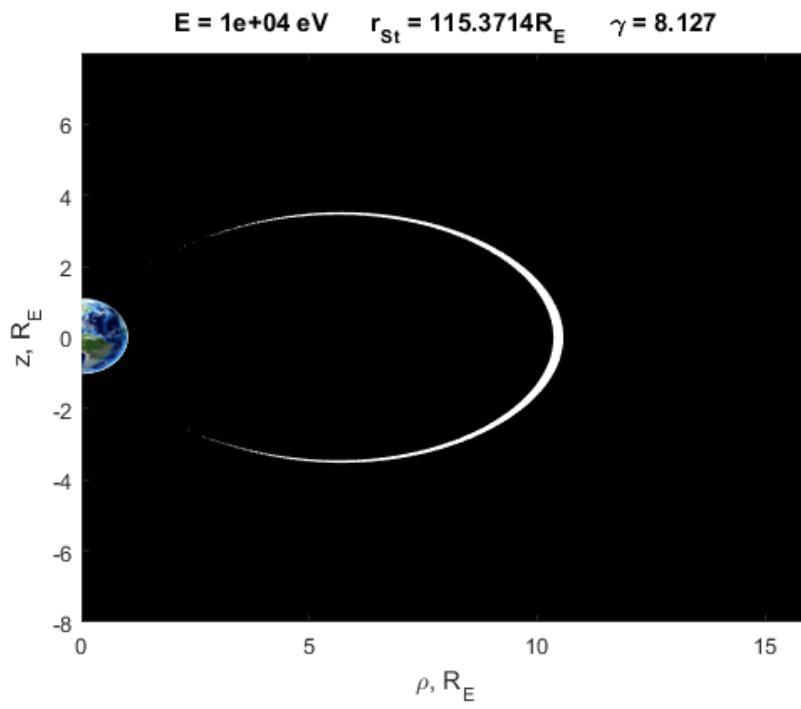


Fig. 1.

C3

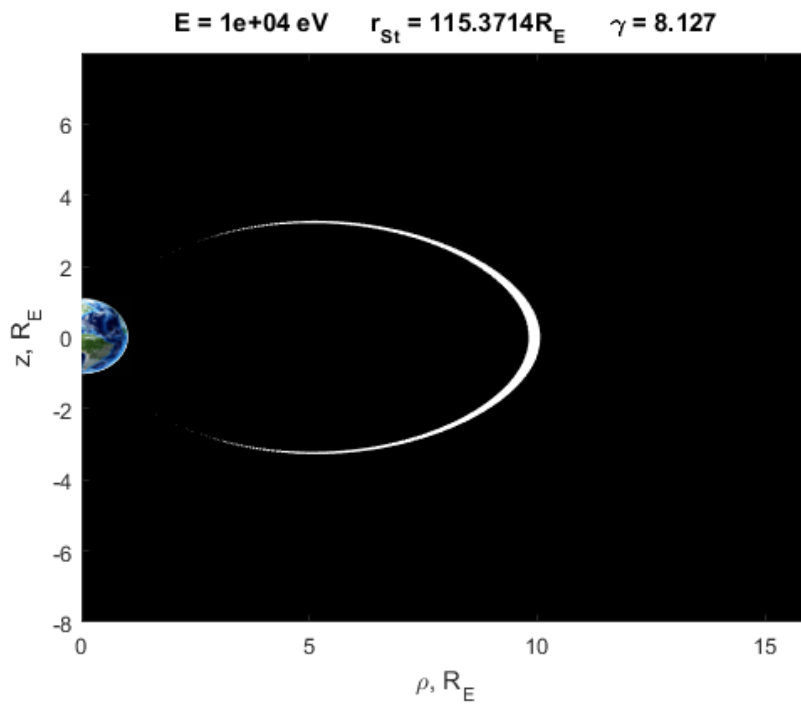


Fig. 2.

C4