This paper has shown a comparison between PROBA-V/EPT and RBSP/MagEIS instruments which had observed different altitudes in the radiation belts. The authors used L-shell sorted data to compare two satellite data, and a result of comparison seems to be good. The paper is well written and organized, but I have a couple of questions which the authors may consider.

We thank you for your review and suggestions to improve our work. Please note that all the line numbers refer to the track-changed version of the paper.

1) Adiabatic effect at the low-altitude satellite observation

Tu and Li[2011, JGR, 10.1029/2011JA016468] has discussed the adiabatic loss effects at the low altitudes through variations of the mirror point altitudes. I suppose that the PROBA-V/EPT data has included such effect which causes differences from the RBSP observations. Could you discuss this point, especailly for the low flux time interval of PROBA-V?

This is a very interesting remark. The data of the EPT (at 820 km) will indeed be affected by the altitude increase of the mirror points. We added the following text to the paper at line 293:

*"Note that this behaviour can be partly explained by the difference in adiabatic losses of electrons at low altitudes and near the equator. Indeed, during a geomagnetic storm, due to the conservation of the second adiabatic invariant of the motion of trapped particles, the altitude of the mirror points will increase (Tu and Li, 2011). This means that low altitude measurements, such as the ones of the EPT (at 820 km) are affected by such effect, while at the equator, the location of the mirror points do not affect the electron flux."*

2) L-shell definition

The authors have used McILwain L value for comparison of both satellites? Is this enough to compare two satellite data at different altitudes? I suggest the authors should use Roeder L* using the time-variable Tsyganeneko-04 or later model and include dicsussion how the authors confirm the accuracy of the field line mapping between two satellites.

Indeed, for both instruments, we used the McIlwain parameter L. The reason for it was because those values are directly provided in both data sets. For MagEIS data, both McIlwain and Roederer parameters are given. However, it is not the case for the EPT, for which only the McIlwain parameter is given. We preferred to make comparisons on similar quantities L than introducing computations of the Roederer L* based on possibly different magnetic field models. Moreover, for L<6 as considered in the present article, no major changes are expected. But the suggested approach is interesting and could be considered in further work. However implementing it in this work would require a lot of efforts for almost no expected improvement.

Minor comments:

page 2: Please include XEP as well as HEP for Arase and relavant references (Miyoshi et al., 2018, , Earthe Planet and Space, doi: 10.1186/s40623-018-0862-0, Mitani et al, 2018, Earthe Planet and Space, doi 10.1186/s40623-018-0853-1, Higashio et al., 2018, Earthe Planet and Space, doi:10.1186/s40623-018-0901-x), and MagEIS (Blake et al., Space Sciece Review, 2013, doi:10.1007/s11214-021-00855-2)

We added those references to our paper, at line: 36, 39, 40, 41