

Ann. Geophys. Discuss., referee comment RC2
<https://doi.org/10.5194/angeo-2021-57-RC2>, 2022
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Comment on angeo-2021-57

Anonymous Referee #2

Referee comment on "Magnetospheric response to solar wind forcing: ultra-low-frequency wave–particle interaction perspective" by Qiugang Zong, Ann. Geophys. Discuss., <https://doi.org/10.5194/angeo-2021-57-RC2>, 2022

This paper aims to summarize our present understanding of the magnetospheric response to solar wind forcing from the ULF wave – particle interaction perspective. Topics addressed include solar wind pressure pulses, poloidal mode waves and their interaction with electrons in the radiation belt, ring current ions and plasmaspheric electrons, focusing on radial transport due to ULF waves. Theoretical, modelling and measurement studies are reviewed. It is a well written review paper, and this reviewer recommends publication after minor comments are addressed, as described in the supplement.

Please also note the supplement to this comment:

<https://angeo.copernicus.org/preprints/angeo-2021-57/angeo-2021-57-RC2-supplement.pdf>