

REFEREE #2

This paper presents the statistical results of enhanced CNA corresponding to the sheath and ejecta structures of ICMEs using data from the Finnish riometer chain. The results showed that sheaths and ejecta are equally effective in inducing enhanced CNA. However, the occurrence frequency and the magnitude of enhanced CNA have different MLT distributions during sheaths and ejecta, which may reflect different MLT distribution of waves responsible for the energetic particle precipitation. The study is well-conceived and is appropriate for publication in this journal after considering the following comments.

We thank the referee for his/her careful reading of our manuscript and constructive comments and corrections. We have modified the paper accordingly.

Page 2 Line 6: "geostatationary" -> "geostationary"

Corrected

Page 3 Line 20: "sheath" -> "sheaths" Please check all the "sheath" through the manuscript. "sheath" is a countable noun. So either use "sheathes" or "the/a sheath"

We have checked through the manuscript and corrected from several places sheath → sheaths

Page 3 Line 23: "at wide range of : : ." -> "at a wide range of : : ."

Corrected

Page 3 Line 35: "substructres" -> "substructures"

Corrected

Page 5 Line 11: "solar wind dynamics pressure" -> "solar wind dynamic pressure"

Corrected

Page 8 Table 2: I would suggest using histograms instead to present the information presented in Table 2 so it would be easier for readers to get the latitudinal trend for each value.

We would like to keep this information in a table format, partly also because we have quite many figures already in the paper.

Page 8 Line 5: It would be better to give a brief description of the "superposed epoch analysis" and explain more detailedly on how exactly you implement the method.

We have added a more detailed description.

Page 22 Figure 2: “solar wind dynamics pressure” -> “solar wind dynamic pressure”

Corrected

Page 25 Figure 5: “fice stations” -> “five stations”

Corrected