

# Final Response

October 1, 2022

We wish to thank both Referee 1 and Referee 2 for their constructive comments helping to improve the quality of our manuscript. We also wish to thank the Topical Editor for also contributing to the scientific quality of our work. In response to the Topical Editor's suggestions we have modified Figures 3 and 8 in the manuscript by enlarging the font used for the axis labels, ticks and titles in order to improve their readability. We have also removed the scientific notation from both Figures' colorbar labels and also scaled mass density from  $kg\ m^{-3}$  to  $m_p\ cm^{-3}$  where  $m_p$  stands for proton mass, to further improve the readability of the Figures.