Anonymous Referee #3

Review of "Comparisons of Polarimetric Radio Occultation Measurements with WRF Model Simulation for Tropical Cyclones"

1. The revised figures, along with the additional verification of track and intensity, are valuable and effectively address my concerns. Thank you for making these improvements.
2. The authors used refractivity to verify the moisture results. However, refractivity here is still treated as a point value under the assumption of being spherically symmetric, allowing it to be calculated at vertical levels rather than along the actual ray trajectory. Ideally, bending angle would be the more appropriate variable for this purpose. I understand, however, that the WRF model lacks a bending angle forward operator, which would make such an analysis beyond the scope of this paper. Given that limitation, the current approach is acceptable.
3. I particularly like the approach taken in the revised Fig. 6, which accounts for the misalignment between the typhoon simulation and the PRO trajectory. However, in L357, the phrase "minor misalignments" seems to downplay the magnitude of the differences (I understand the authors probably use minor here for the distance though). As shown in the comparison between the original and revised Fig. 6, the misalignment between the typhoon's asymmetric structure and the PRO trajectory can be quite significant, with substantial changes in the Ice and total values for most schemes. I suggest revising the wording to avoid implying that the misalignments are not significant, as this could misrepresent their potential impact on interpretation. Anyway, this clearly indicates that the misalignment between the typhoon's asymmetric structure and the PRO trajectory can have significant impacts on the result interpretation, and if not considered appropriately, it could lead to incorrect conclusions. It also reveals a notable limitation of current model simulations and the use of PRO information in such contexts: if the model's storm center location and asymmetric structure are not both well aligned with reality, assimilation of PRO data could either introduce instability/negative impacts or have no impact at all. While data assimilation is not the focus of this study, these results actually highlight a powerful alternative use of PRO: as a validation dataset to diagnose the degree of misalignment between model simulations and observations. This might worthy of authors to emphasize as the value of PRO.

We sincerely thank the reviewer for the constructive and detailed comments. Following the suggestions, we have revised the manuscript accordingly. Specifically, we removed the word "minor" when describing the misalignments and emphasized that the

simulated typhoon's asymmetric structure may deviate from reality and should be considered. We believe these revisions more accurately reflect the potential impact of the misalignment between the typhoon simulation and the PRO trajectory.