

We thank the referee for their remarks. Reviewing a long manuscript is a challenging task, and we are grateful for the time and effort they dedicated to our work. In this revised version, we have addressed all the points raised to improve the clarity and quality of the manuscript, aiming to avoid any potential misunderstandings. All changes in the manuscript are highlighted in red for ease of reference. Below is a summary of the modifications made:

1. In Sec. 2 and Sec. 3, we discussed how the background dynamics is affected by quantum effects and how the perturbations are calculated within the Bohmian framework. We have added a detailed explanation of how the Hubble function and its time derivative are computed in a Bohmian trajectory, as well as the role of energy density in calculating perturbations. This ensures clarity on how terms such as $1/(\bar{\rho} + \bar{p})$ remain well-defined when \bar{H}^2 or $\dot{\bar{H}}$ pass through zero.
2. The revision mentions that the density contrast used is the same as in previous sections, but applies the approximation $w \ll 1$ for cold dark matter.
3. In Sec. 4, we have added a detailed explanation of the assumptions made regarding the quantum-to-classical transition. We have clarified that the perturbations are treated as classical at the current stage of the work. If quantum effects were considered, a quantum Misner-Sharp model would be required, which is a complex problem not yet fully addressed in the literature.