

Reviewer 3

The authors adequately addressed my previous suggestions and comments, and, in my opinion, the paper is ready for publication.

An additional suggestion is to briefly present the rationale for using a high diffusivity value of $K_h = 1000 \text{ m}^2/\text{s}$. One could argue that, since the ensemble spread is largely driven by partially resolved mesoscale variability in the model, the chosen diffusivity should be sufficiently high to reflect eddy-induced particle dispersion—an effect that can be estimated through Lagrangian analysis.

We thank the reviewer for this final comment. In the revised manuscript, we have now added a sentence in the description of our diffusion experiments to explain the rationale for $K_h=1000 \text{ m}^2/\text{s}$:
“The second is a high diffusion of $K_h = 1000 \text{ m}^2 \text{ s}^{-1}$, which is a value used to parameterize eddies in ocean models with $O(1^\circ)$ spatial resolution (Reinders et al 2022). This latter value likely overestimates the eddy-induced particle dispersion driven by the partially resolved mesoscale variability in the ensemble members, so can be considered an extreme case.” (lines 202-205 of the track-changed pdf).