The main remark about the comparison with state of the art vertical coordinates (point #5) has been cleared out, the default run is already using Quasi-Eulerian vertical coordinates, as I have asked. All the other suggestions have been taken into account. I thank the authors for the interesting discussion on the physical mixing (#14). I have only some minor doubts, that can be further clarified.

1 Specific comments

1/ Section 2.3.3. Since the default scheme is already ALE or "Quasi-Eulerian", the velocity W, should not be the vertical velocity at the interface between j and $j+1$, but the relative velocity. I guess when you talk about "typical numerical values W ..." you are already considering the "good" velocity. If this is the case, using another name for $W/\tilde{w}$ instead of the generic "velocity field" could help to further clarify my original misunderstanding.

2/ The paragraph about TVD is a slightly more clear to me now. Although I still do not fully understand the comparison between a high order linear scheme such as UP3 and non-linear ones such as TVD/WENO that of course are more diffusive since they are designed to handle sharp gradients.

3/ Thank you for the discussion on the stability. Could you please clarify what do you mean when you write "Since the upper bound is set by the fact that the evaluation of the UP1 term is lagged in time."?

Thank you