

## Review report

Having reviewed the original manuscript, and now after reviewing the revised manuscript, I can recommend its acceptance for publication subject to minor revisions.

Generally, the English language would still need improvements here and there. The following comments must be taken into account and appropriate corrections should be made. In the following PXLN means page X line N.

P1L30: “mesoscale scales” → mesoscales

P2L28: “...from a downstream boundary back to the upstream inlet.” It makes no sense to recycle the velocity field from the downstream boundary. This would be like in the normal cyclic boundary condition. Normally the data to be recycled is taken from some downstream plane between the inflow boundary and the principal area of interest. So, this could be written e.g. as: “...from some suitably selected downstream plane back to the inflow boundary plane.”

P7L21: “wass” (please note that there are typos elsewhere, too)

P9L4: “shear turbulent stress” → turbulent shear stress

P10L6: “...due to the SGS and molecular viscosities.” Frankly, the molecular viscosity plays no role at this high Reynolds number and this grid resolution. The SGS viscosity certainly exceeds it everywhere by several orders of magnitude. However, the numerical dissipation originating from the fifth-order upwind-biased Wicker-Skamarock advection scheme used in WRF is probably of comparable importance in the spectrum high-end drop as is the SGS-dissipation. This should be mentioned.

P11L30-32: some questionable language: “...consistent with in the findings...” and “...may be owe to the...”.

P12L27: “...shows a broad inertial subrange of -5/3 slope.” In my view the inertial subrange in the spectra shown in Figs. 6 and 10 is not at all broad. Instead, it is just hardly distinguishable. The word broad must be erased here.

P25L13-18: Reference Maronga et al 2019 is outdated. That article has been published in Geosci. Model Dev., 13, 1335–1372, 2020 <https://doi.org/10.5194/gmd-13-1335-2020>. The reference must be updated accordingly.