



Supplement of

ROMSPath v1.0: offline particle tracking for the Regional Ocean Modeling System (ROMS)

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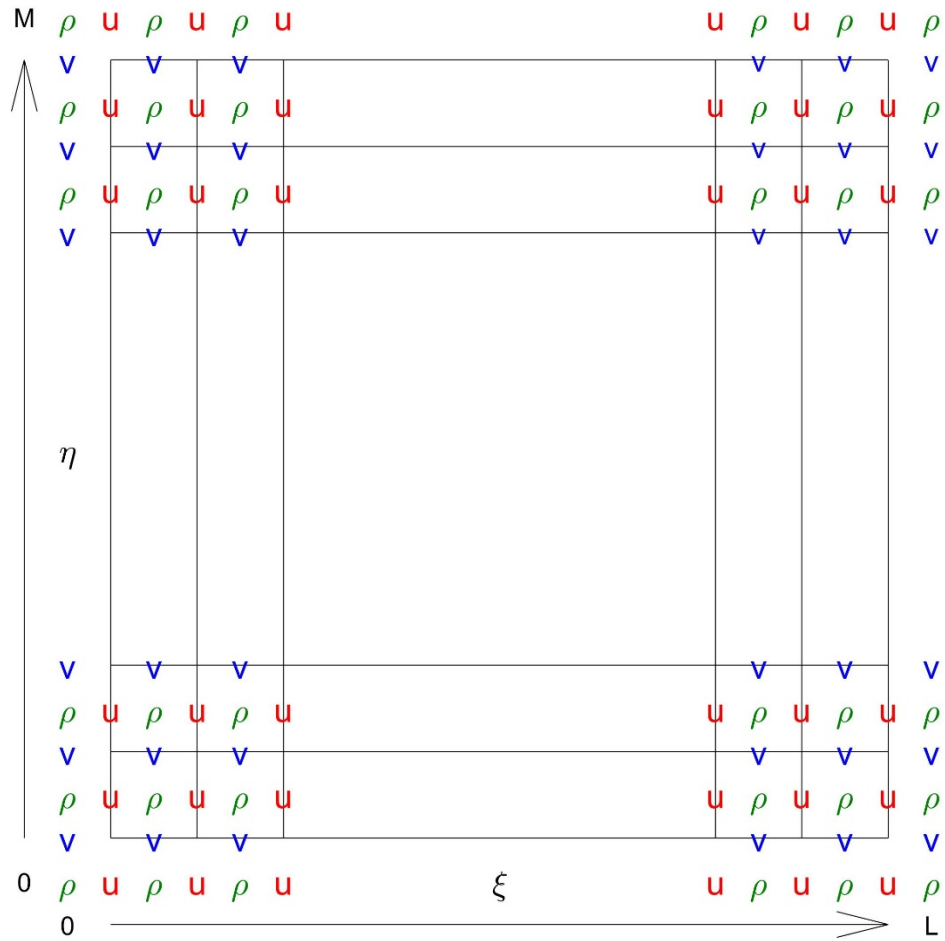


Figure S1. An example of the Arakawa C-grid ROMS grid used for internal computation in ξ, η coordinates. The ρ points are the grid locations of tracers (salinity/temperature). The u and v grid locations are for velocities in the ξ and η directions respectively. L is the dimension of the grid in the ξ direction and M is the dimension of the grid in the η direction. For reference to the model domain in our examples, in Fig. 1 the ξ direction points to the northeast and the η direction points to the northwest.

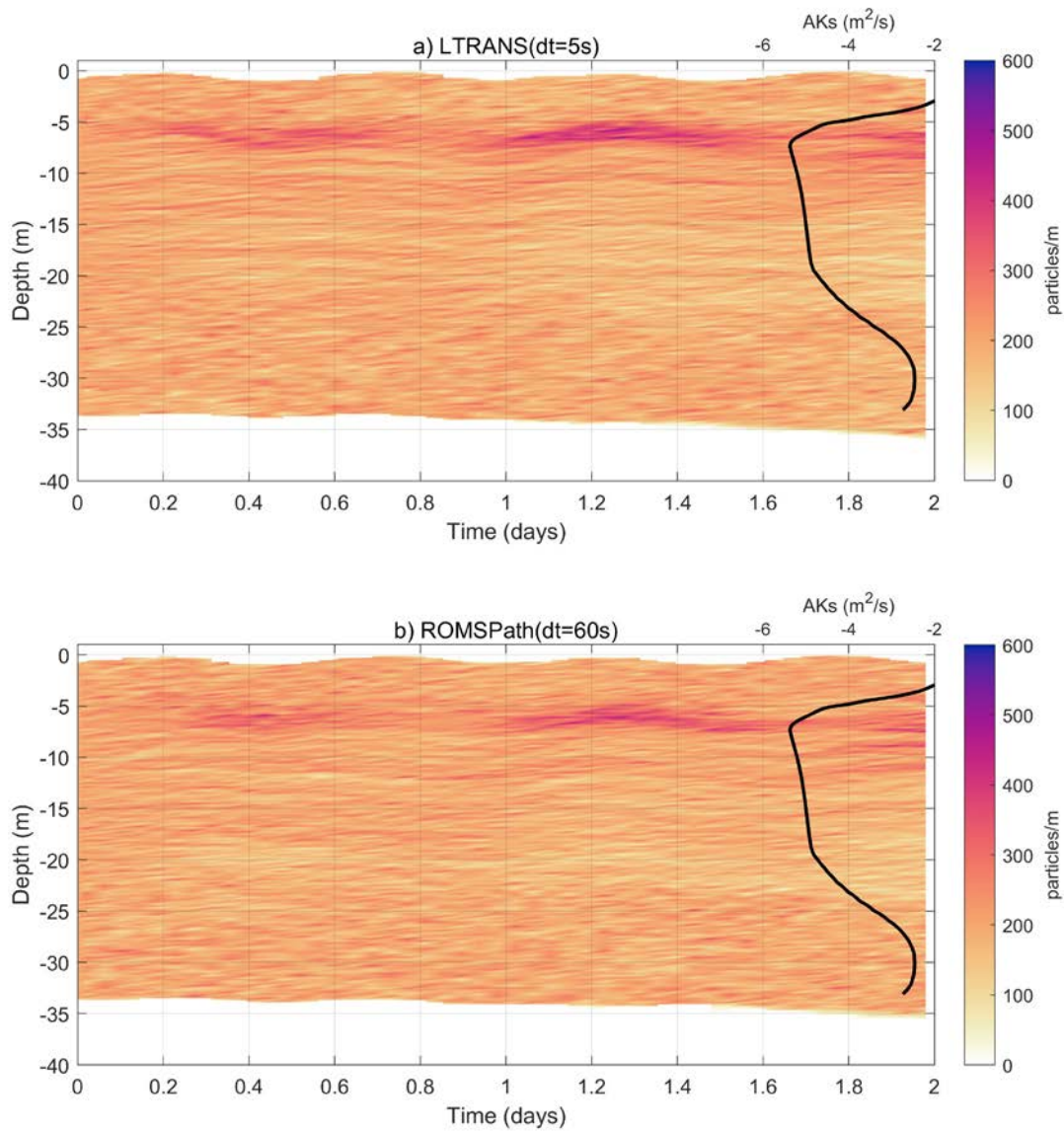


Figure S2. Vertical density of particles over time for a) LTRANS run and b) ROMSPATH run. The simulation in panel S2a is an LTRANS simulation with a time step of 5s as opposed to figure 5a which has a time step of 60 seconds. Otherwise this figure is identical to figure 5. They are initialized at the same horizontal location and time, with 3285 particles evenly spaced in the vertical. A representative vertical tracer diffusivity ($\log_{10}(\text{AKs})$) is overlaid in black. The mid-depth clustering in the LTRANS runs is mitigated with a smaller time step.