Review of Implementation and evaluation of open boundary conditions for sea ice in a regional coupled ocean (ROMS) and sea ice (CICE) modelling system

This is the second review of the manuscript that demonstrates the value of boundary conditions that includes dynamics. The manuscript has improved however I still request some minor changes. One is the missing conclusion.

Abstract line 29. I assume that the improvement is due to the use of A4 oceanic boundary conditions rather than the nested area. If this is the case it should be mentioned here.

Line 51 and 52

"Also, knowledge about the possibility of ice in an area might be more important for applications than the specific details of the sea ice cover."

I am sure what is referred to here. Is it that the results are used as statistics of a hindcast for planning or is it that an approximate sea ice cover is good enough for some application? Please clarify

Line 68: CICE do include two packages from v6 and onwards, however you models are version 5.1.2 and something close to v6.0.0 (I assume). I am not sure whether it add value to mention it or if it confuses more that you mention it.

Line 77 primary model for forecasting **of** sea ice conditions….

Line 82 should this refer to section 2.2?

Line 86 could you add a reference to Arome-Arctic

Line 105 Here you could referebce the cice 6.0.0alpha CICE Release Table · CICE-Consortium/CICE Wiki · GitHub as the code you got is likely close to this

Section 2.2 I think that it is more natural to describe the coupling after section 2.1 and before the individual model setups (move 2.2 before section 2.1.1 and 2.1.2)

Line 125. Do you use CICE_Finalmod.F90?

Line 230 I think that ice sheet is normally used for glaciers. I would rephrase to ice cover

Line 330 I would replace roughly one month with the date it was reinitialized.

Line 376 reference figure 1 and the trajectories

Figure 4a I miss an explanation why the RMS error increases in wintertime.

Section 3.2.1/ Figure 5

I am not sure whether this adds value when figure 6 is included. The ocean is not in focus but the balance between 3 large figures and ~10 lines of text seems a bit off

Section 3.2.2

Please check references. I think that there are some, which do not match after removing a figure.

Line 394 – 398 some more details about the distribution would be nice.

Line 446 – 451 Comment There is a contradiction in running nested models. You would like to resolve the physics better and based on this get a different result. On the other hand, you also want the model to be similar on the boundary in order not to create strange behaviors there.

Line 449 I would remove matching

Line 460 and 462 hallo -> halo