

**Sea ice in the Baltic Sea during 1993/94–2020/21 ice seasons from
satellite observations and model reanalysis**

by

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It is very difficult to play with the manuscript when two reviewers have already published the reviews. I will keep decisions of the previous reviewers and will mark it as a major revision, however, I do not like this paper. And I also agree with most of the previous comments. There is one that needs to be changed – the reader is not interested in the software used – so the sentence with the explanation of the function 'R' should be removed.

Firstly, it sounds strange or it is a big issue that the reanalysis of sea ice included in the Copernicus database looks like it is wrong. I have no idea what should be fixed, but based on figure 6, the modeled sea ice thickness is excessively overestimated, which suggests problems in the circulation model or wrong parameterizations in the ice model – sea ice is created at the boundary between the ocean and air or between the ocean and sea ice. However, it should be described in the Copernicus database – somebody paid for those data and it has been accepted. To me, the data in the Copernicus database should be treated as a reference, and such dataset should not be accepted.

In my point of view the SAR and ice charts data set is the best.

The paper presents a simple analysis of the three datasets in the Copernicus database. There is nothing special about the paper except the numbers that could be used by other researchers.

I have only small comments:

The freezing and melting seasons depend on time but also on location, which means that the time depends on location, but in this work, it is divided only in time (DJF and MAM). I think it is a wrong approach and should be fixed.

The SD in the paper differs, and I feel there is a problem with the circulation model which is also visible in figure 6.