

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

We appreciate the thorough reading and constructive feedback.

Rev 4:

More details into either physical mechanism or technique processes will benefit the improvement of the current MS. Besides, the content in the discussion section is strange because they are more suitable for the introduction section than here.

Response: We have revised the manuscript accordingly. In the discussion section, we have added further details on the physical mechanisms underlying sea ice decline, supported by relevant literature and additional analyses (e.g., the relationship with atmospheric patterns such as the NAO and AO).

To address model improvement, we have highlighted relevant approaches from the literature that are particularly applicable to the Baltic Sea and connect them to the key issues identified in our analysis (e.g., biases in onset timing and spring thinning rates).

Some of the discussion part, which was more suitable for the introduction,, has been moved to the introduction section.