Second Review of "Conservation of heat and mass in P-SKRIPS version 1: the coupled atmosphere-ice-ocean model of The Ross Sea" by Alena Malyarenko, Alexandra Gossart, Rui Sun and Mario Krapp.

The authors have submitted a much improved manuscript, and I believe it to be suitable for publication after addressing the very minor comments below:

Minor Comments:

Line 29: "due to the remoteness **of** and harsh conditions prevailing in the Antarctic."

Line 33: "Warmer **global**-mean surface temperartures lead to..."

Line 37-53: The acronyms "ESM" and "GCM" are used interchangeably here. In general for the context here they are the same thing, but I would suggest sticking with one to avoid confusion.

Also, Hines and Bromwich (2008) is an odd choice of citation here (Line 39). This paragraph is talking about how global models are not optimized for polar regions, but the citation is for a paper presenting results from a polar-optimized regional model (PWRF). Would suggest finding a better reference for this statement or removing.

Line 61: "However, fully-coupled ocean-atmosphere-sea ice (and ice sheet) **models** are rare for any of the..."

Line 83: Here and in other places there are parentheses around the year for references already in parentheses. I suspect this will be caught in copy-editing though.

Line 102: "... are extracted from **the** BEDMAP-2 product (Fretwell et al., 2013)."

Line 118: dissociates -> distinguishes

Line 121: "...and has a refined snow water equivalent reproduction (closer to reality)." I appreciate that the authors have revised this sentence, however my question was really about what IS reality here? What observational product is the model being compared to to make this assessment?

Line 124: 61 model levels -> 61 vertical levels

Line 149: "The experiments were set with the aim of testing the model skill..."
Similar to my first round of comments, you are not really testing model skill. That is, you are not evaluating the model's ability to reproduce observations or another model. Would suggest rephrasing to "...with the aim of comparing various model configurations for different sea ice cover conditions (winter vs summer)."

Line 151: "cast study" -> "case study"

Line 197: “This standard import way” -> “This standard import method”

Line 334-335: “...the components are added individually and the time step non conveective precipitation term is ignored.”

I think the words “time step” are not needed here? So I think this should be “...the components are added individually and the non-convective precipitation term is ignored.”

Line 362: P-SRIPS -> P-SKRIPS

Line 398-399: Would suggest changing to “The energy imbalance of up to 922 W m^{-2} due to non-conservation of energy in the previous Skripps-KAUST version of the model likely affects the heat content ...” or similar.

I would also like to note that I am pleased to see that a solution has hopefully been come to for the issue of code availability.