

Author: Sensitivity of Northern Hemisphere climate to ice-ocean interface heat flux parameterizations

Authors: Xiaoxu Shi, Dirk Notz, Jiping Liu, Hu Yang, and Gerrit Lohmann

---

This is a second review of the paper by Shi et al. The authors have addressed the comments of the reviewers satisfactorily. I recommend that the paper be accepted after the minor revisions below have been addressed.

Minor points:

- 1- The beginning of the introduction with the presentation of an equation in the second sentence is a little brutal. I would suggest adding a paragraph introducing the context of the work; the preferred approach (ice bath, 2 or 3-equations model) in the GCM community; etc.
- 2- Line 33: "... at its freezing POINT temperature...".
- 3- Line 41: Eliminate double parentheses before MIZEX.
- 4- Line 96-97: "In a recent study..." This sentence must be edited. Punctuation should be used given the large number of subordinate propositions that preface the principal proposition, or better still, it should be written in the active form. This writing style is used throughout. I suggest doing this everywhere necessary everywhere necessary. Line 408 is a prime example of this.
- 5- Line 109: Have you included your 3-equation model into the public version of CICE? CICE is on github and publicly available. It would be a nice addition/contribution to the community (contacts: JF Lemieux, ECCO and E. Hunke, LANL).
- 6- Line 312: "... reflects is caused..." kill one of the two.
- 7- Figure 7 caption: State the latitude of the transect.

Bruno Tremblay, McGill University.