

Assessing the Antarctic Ice-sheet sensitivity to oceanic-induced melting with **Yelmo**

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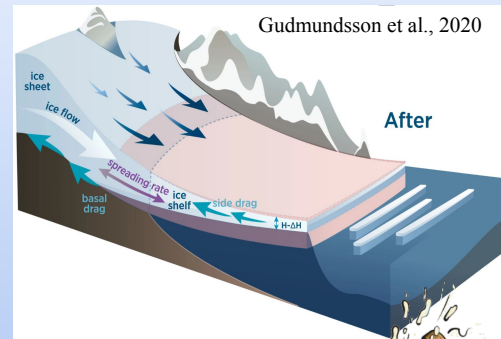
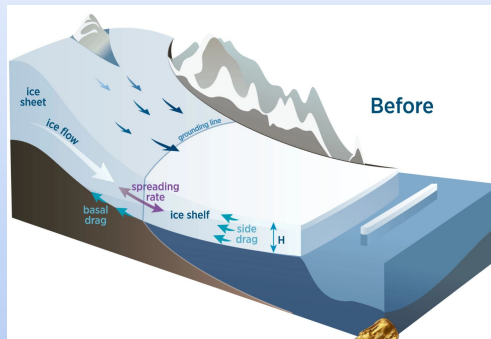


PolarCSIC, 13 de Mayo, 2022

Context | Results

Why?

- Ice-shelves → Buttrressing
- ABUMIP (Sun et al., 2020)



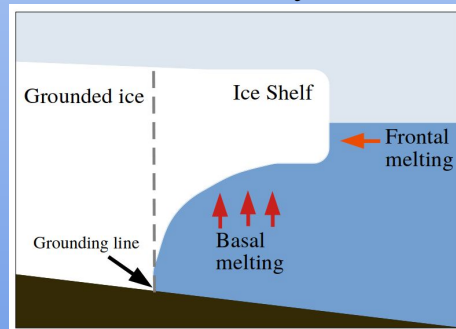
Aim

- Sensitivity of modeling melt at the limits
 1. Grounding line
 2. Ice-shelves front

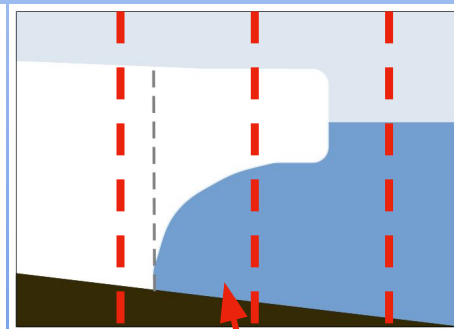
How?

- Yelmo (Robinson et al., 2020)

In Reality



In the Model

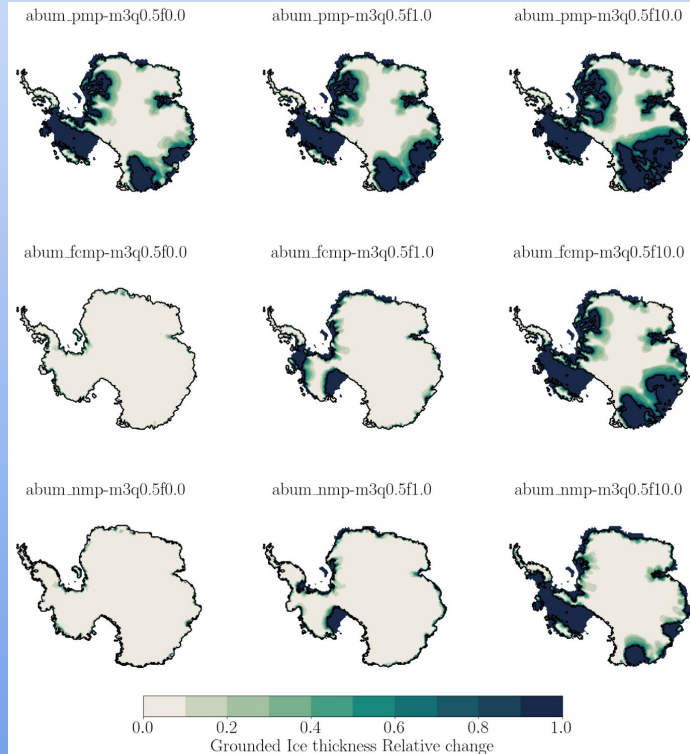


Grid cells

Context | Results

More melting at the front of the ice sheet

More melting allowed at the grounding line

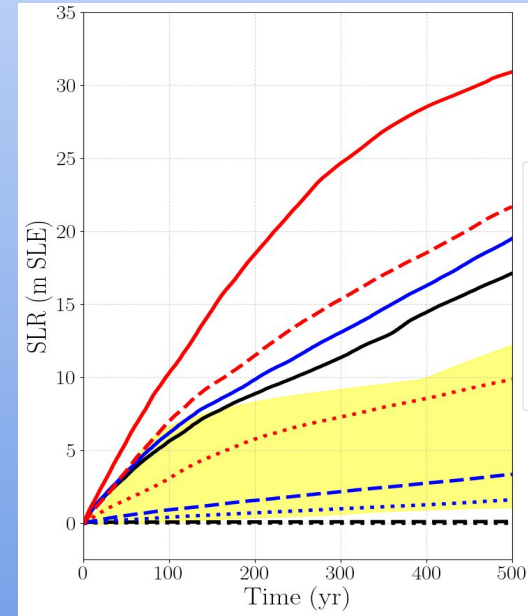


Melting at the GL

Melting at the front

— PMP
- - - FCMP
... NMP

$f_c = 10.0$
 $f_c = 1.0$
 $f_c = 0.0$



Great Spread

The shading represents ABUM results of Sun et al., 2020



¡Gracias!

