Technical comments of the paper "Coupling the regional climate MAR model with the ice sheet model PISM mitigates the melt-elevation positive feedback", by Delhasse et al.

Additional editor's private note:

LIST OF COMMENTS:

L114-115: Membrane stresses do comprise longitudinal stretching and transverse shearing. Please rephrase.
L115: Possibly rephrase: 'is assumed to move at the same horizontal speed'

Original sentences:

"Faster flowing ice, such as ice streams, glaciers, and shelves, is typically approximated using the SSA. In this case, longitudinal stretching dominates, and membrane and transverse stresses must be taken into account. The ice base is assumed to be slippery, and the full ice column moved at the same horizontal speed."

Are rephrased here:

"Faster flowing ice, such as ice streams, glaciers, and shelves, is typically approximated using the SSA. In this case, longitudinal stretching dominates, and membrane stresses must be taken into account. The ice base is assumed to be slippery, and horizontal speed is approximately equal throughout the depth of the ice."

L128: Capital letters for Mohr and Coulomb.

Ok thanks.

Fig. 2: Omit the line from the left box 2 to the right box 1 (2 --> 1) in the lower right corner. It is, in my view, redundant to the line from left box 1 to box 2. The same is valid for 9 --> 1. But you would then need a line from 1 --> 9.

Thank you for your comment. I guess you are requesting changes about Figure 1 and not Figure 2. We didn't well understand the comment in your last rapport and corrected by removing an arrow in the actual Figure 2. We then re-add this arrow in Figure 2, and finally correct the Figure 1 following this comment.