

Response to editor

November 3, 2025

Dear Anne-Marie

The remark from Reviewer1 about current direction has been taken into consideration (the direction reads now North-East).

About the Reviewer2 comment on the relevancy of plotting the Soulby's formulation, even if it fails to predict the observed stress enhancement, we think it deserves to be displayed owing to the fact that it is a very classical parameterization used in many models. But if it is considered more appropriate by the Reviewer and the Editor, the plots can be easily moved to appendix.

Best regards,

Damien Sous, on the behalf of all co-authors