

Supplementary material

Influence of increasing surface melt over decadal timescales
on land terminating, Greenland-type outlet glaciers.

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1 Evolution of the length of the crevassed area

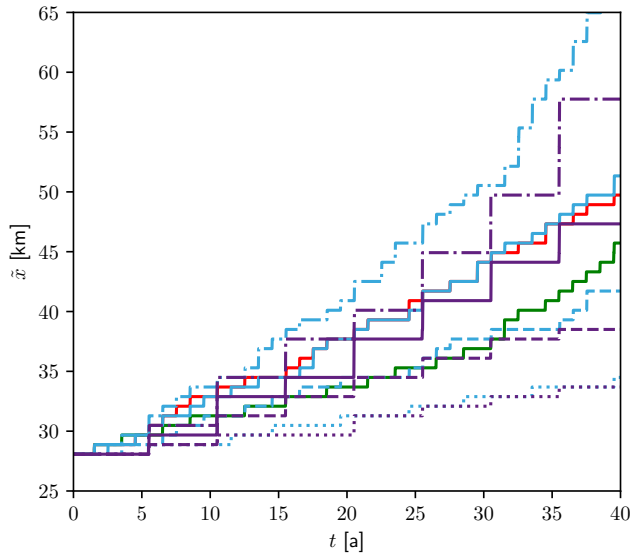


Figure S1: Same as Fig. 9 but showing the evolution of the maximum distance from the glacier front of the crevassed area: in blue STEP2 (dotted), STEP4 (dashed), STEP6 (solid) and STEP8 (dash-dotted); and in purple PEAK10 (dotted), PEAK20 (dashed), PEAK30 (solid) and PEAK40 (dash-dotted). The solid red curve corresponds to the STEP6 forcing for a fixed upper free surface; the solid green line corresponds to the STEP6 forcing but without upstream activation of moulins (constant number of moulins over the 40 years)

2 Supplementary figures for simulations STEP2, STEP4, STEP8, PEAK10, PEAK20 and PEAK40

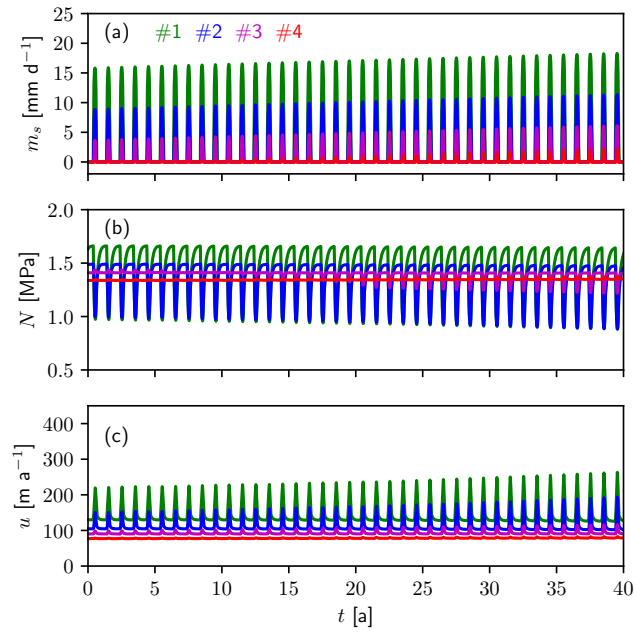


Figure S2: Same as Fig. 5 but for STEP2.

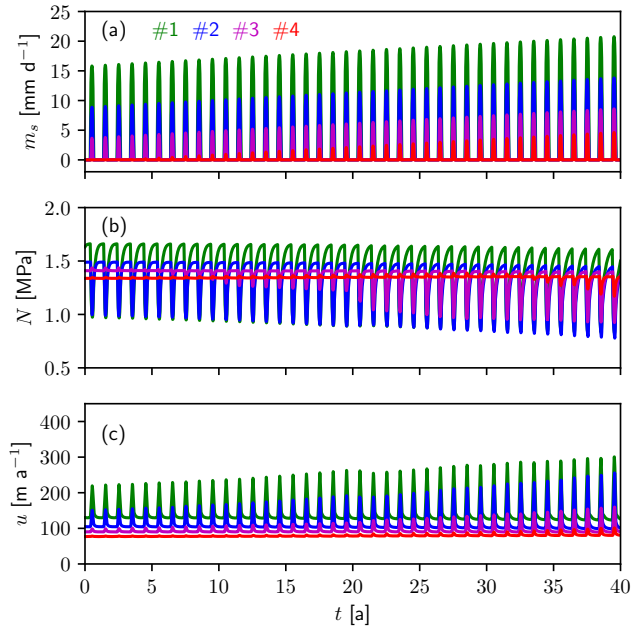


Figure S3: Same as Fig. 5 but for STEP4.

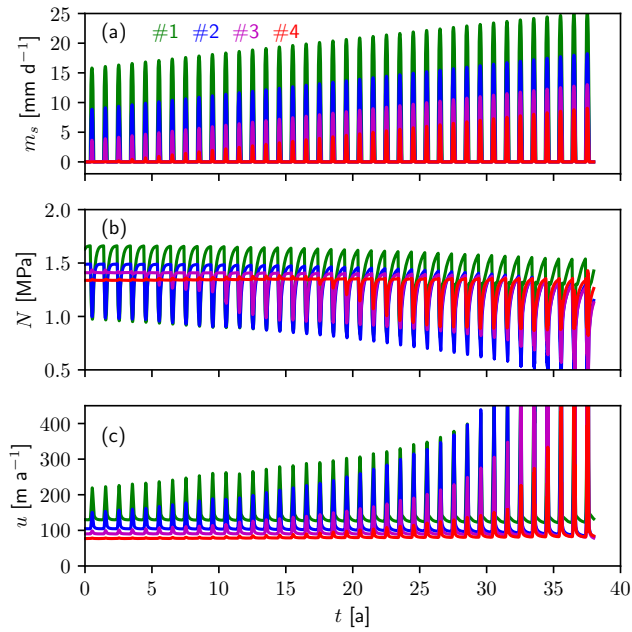


Figure S4: Same as Fig. 5 but for STEP8. Note that after 38 years, the model fails to converge.

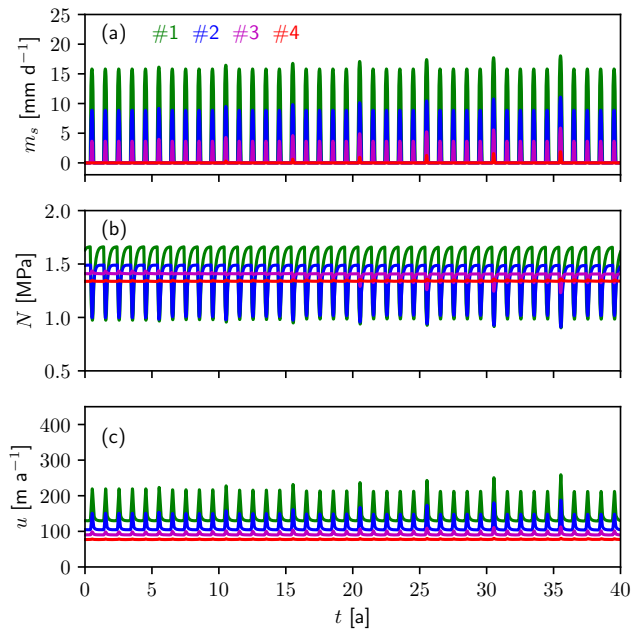


Figure S5: Same as Fig. 5 but for PEAK10.

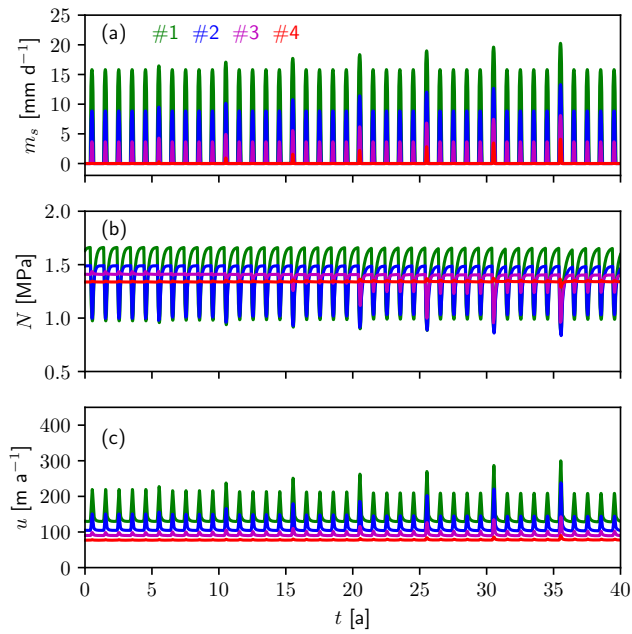


Figure S6: Same as Fig. 5 but for PEAK20.

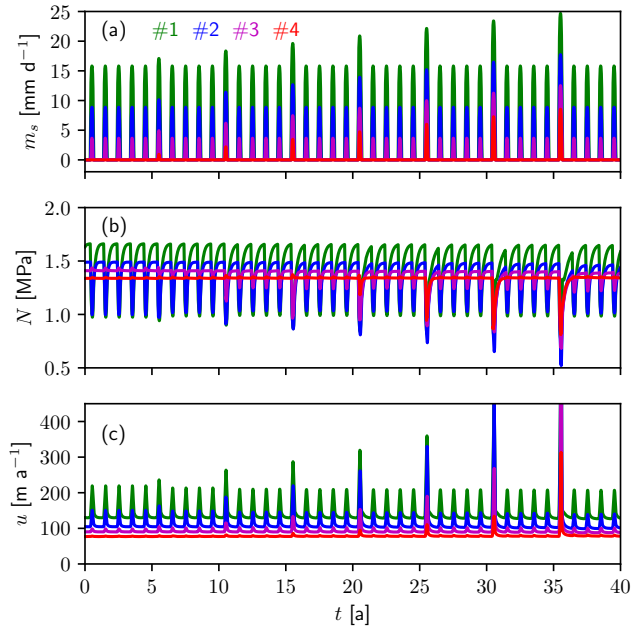


Figure S7: Same as Fig. 5 but for PEA40.

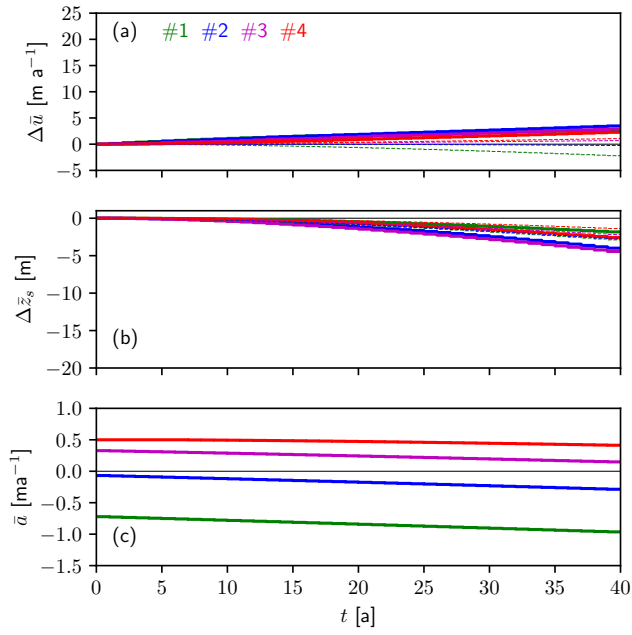


Figure S8: Same as Fig. 7 but for STEP2.

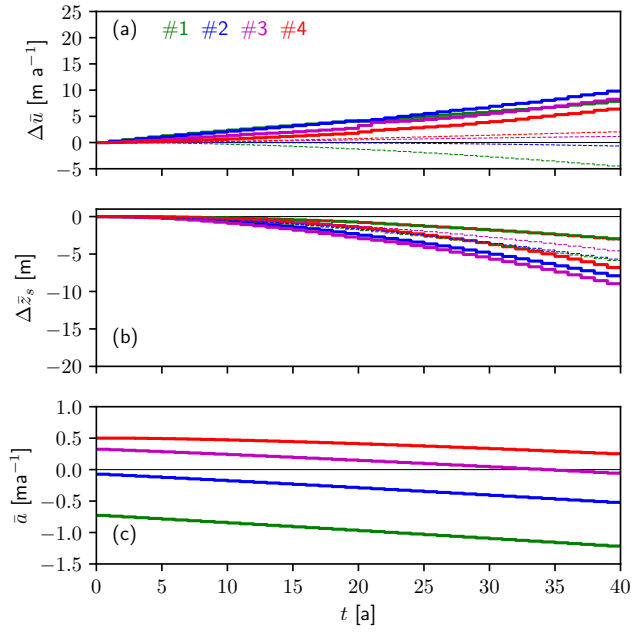


Figure S9: Same as Fig. 7 but for STEP4.

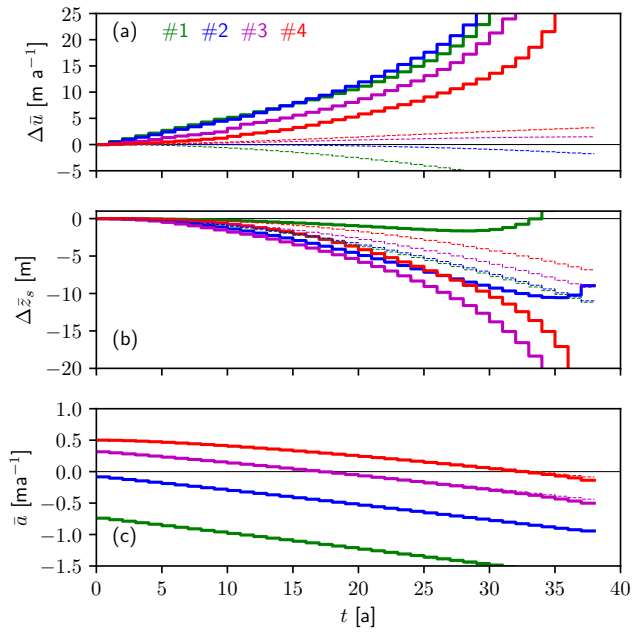


Figure S10: Same as Fig. 7 but for STEP8. Note that after 38 years, the model fails to converge.

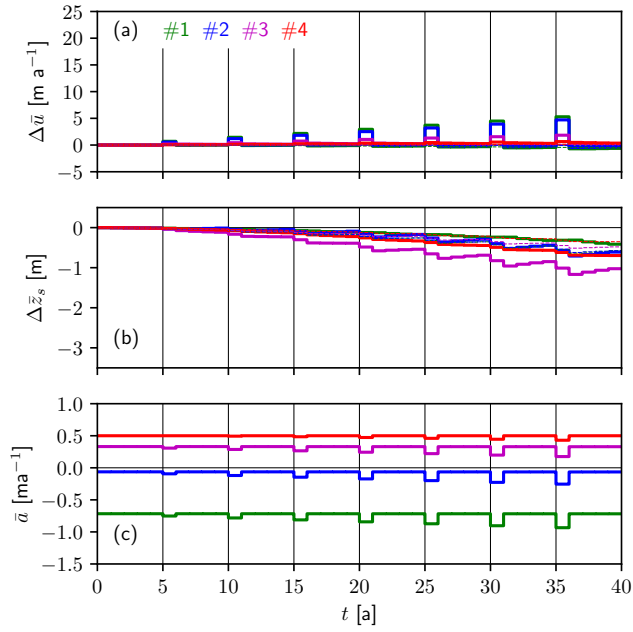


Figure S11: Same as Fig. 7 but for PEAK10.

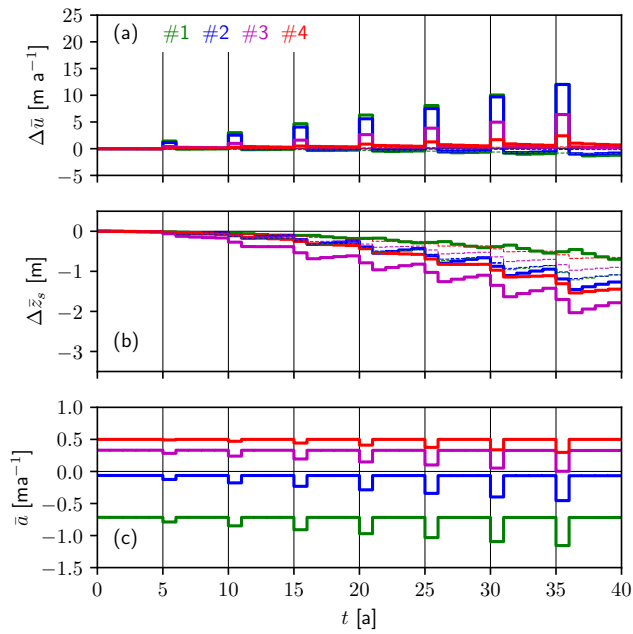


Figure S12: Same as Fig. 7 but for PEAK20.

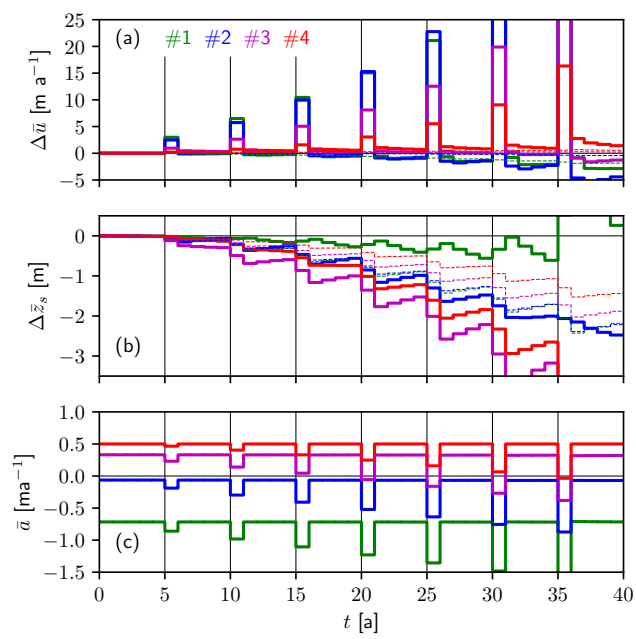


Figure S13: Same as Fig. 7 but for PEAK40.