

SUPPLEMENTARY MATERIAL

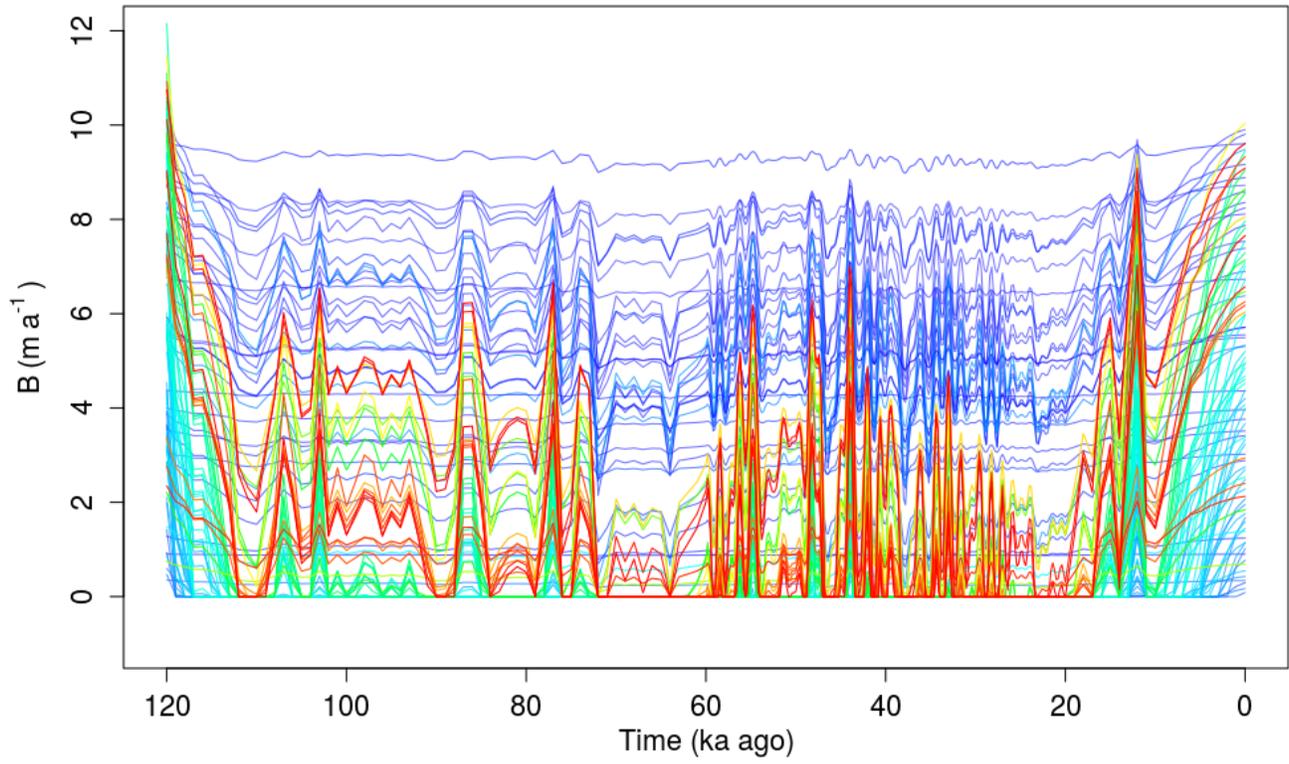


Fig. S1 Ensemble of basal melting rate evolutions for the 100 LE TOT simulations throughout the last glacial period. Color scale refers to the colored legend of Fig. 3.

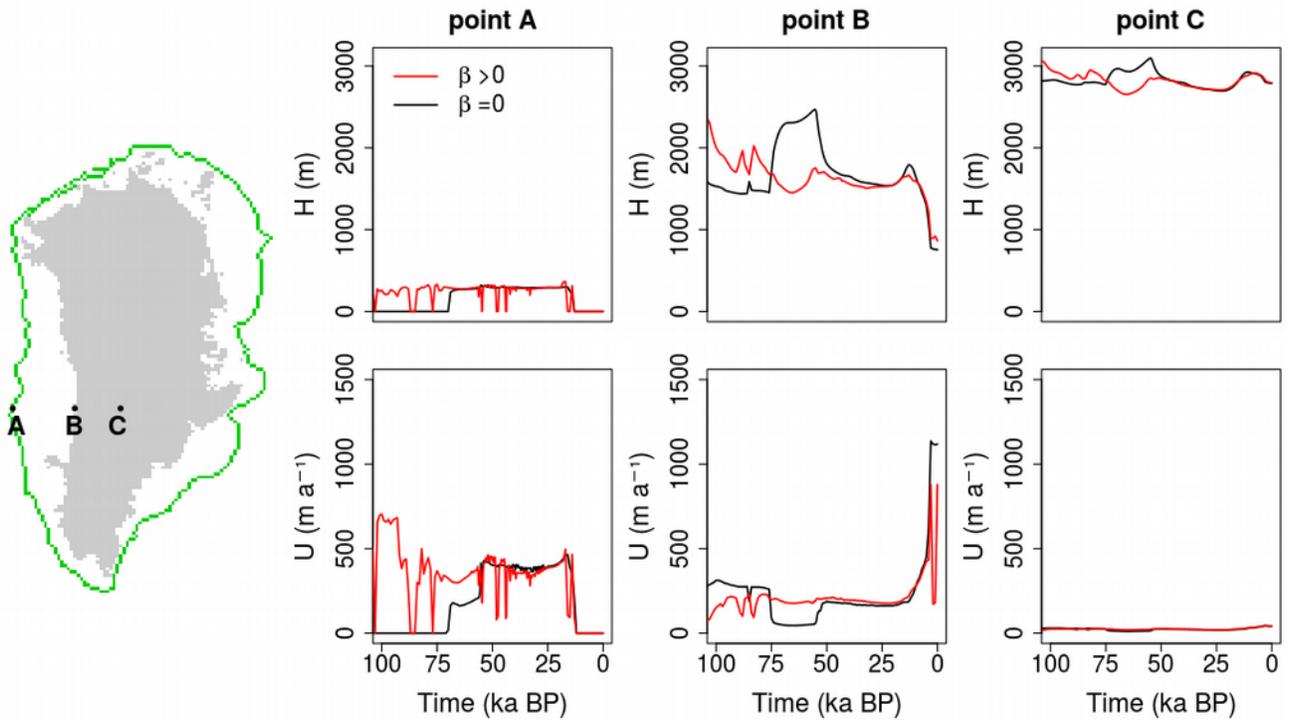


Fig. S2 Transient dynamics specified for three locations along Jakobshavn Isbrae outlet glacier. Ice thickness (upper panels) and velocity (lower panels) LGP evolution is shown for the glacial marine margin (point A), present-day marine margin (point B) and far in the interior of the ice sheet (point C). Black curves indicate the dynamics of the ORB_{max} simulation, red curves represent the dynamics of the TOT_{max} simulation. Green line on the map on the left-hand side shows the maximum GrIS glacial extent simulated in TOT_{max} .

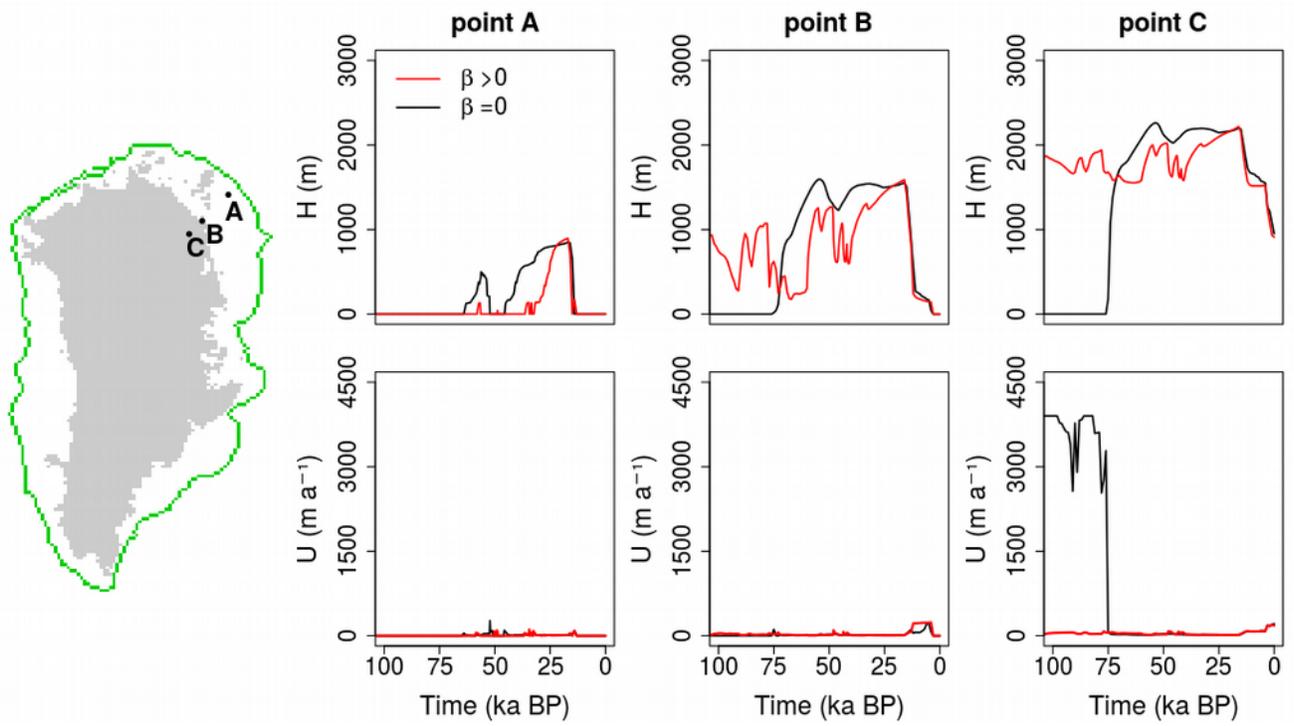


Fig. S3 Same as Fig. S2, but for three locations along NEGIS area.

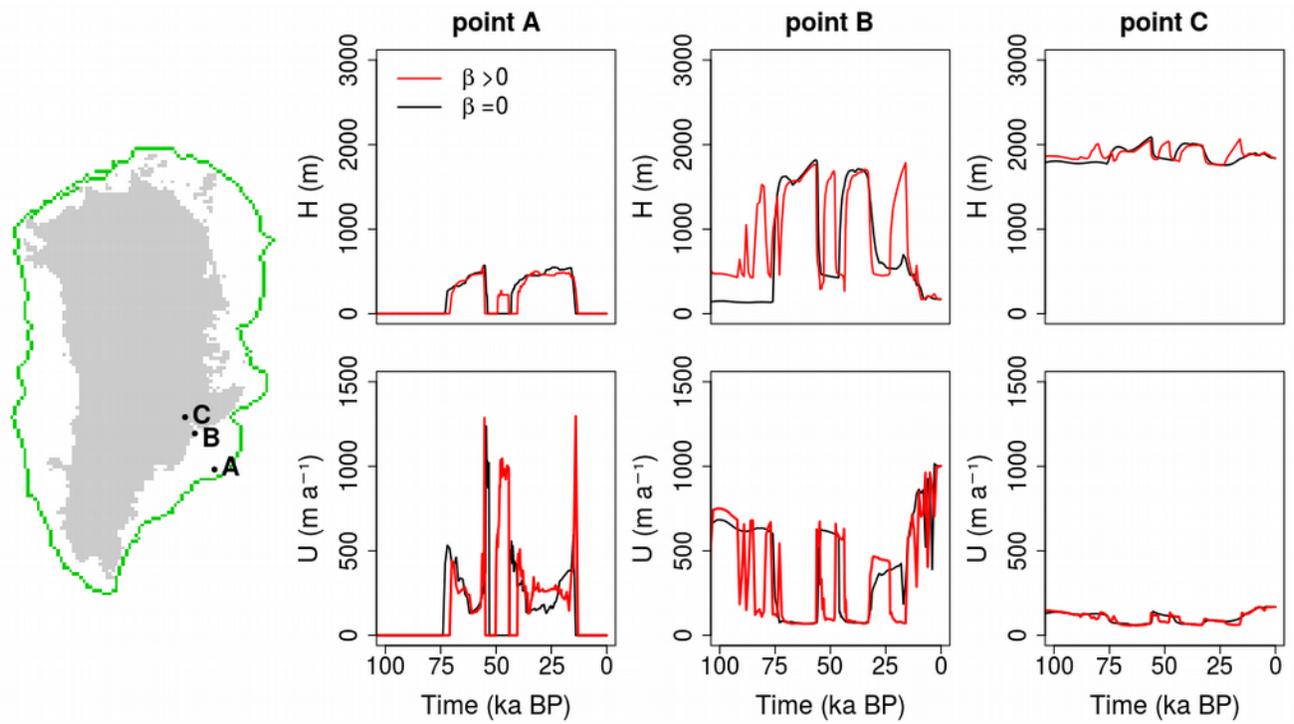


Fig. S4 Same as Fig. S2, but for three locations along Kangerdlugssuaq fjord.

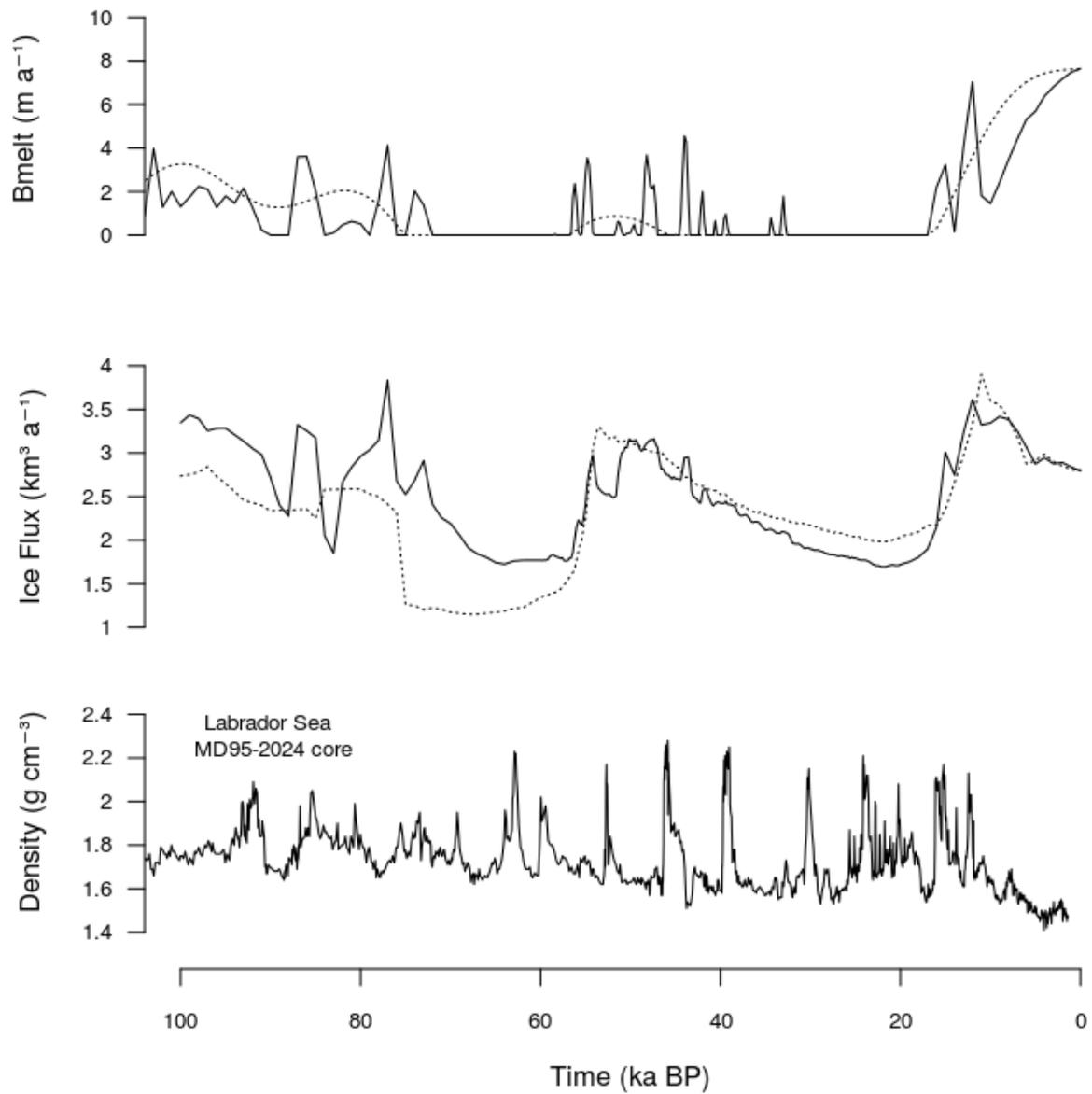


Fig. S5 Simulated submarine melt (upper panel) and simulated ice flux averaged over the Baffin Bay region (middle panel) are compared to proxy-derived gamma ray density from the sediment core MD95-2024 in the Labrador Sea (lower panel). Density from Weber et al., 2001.

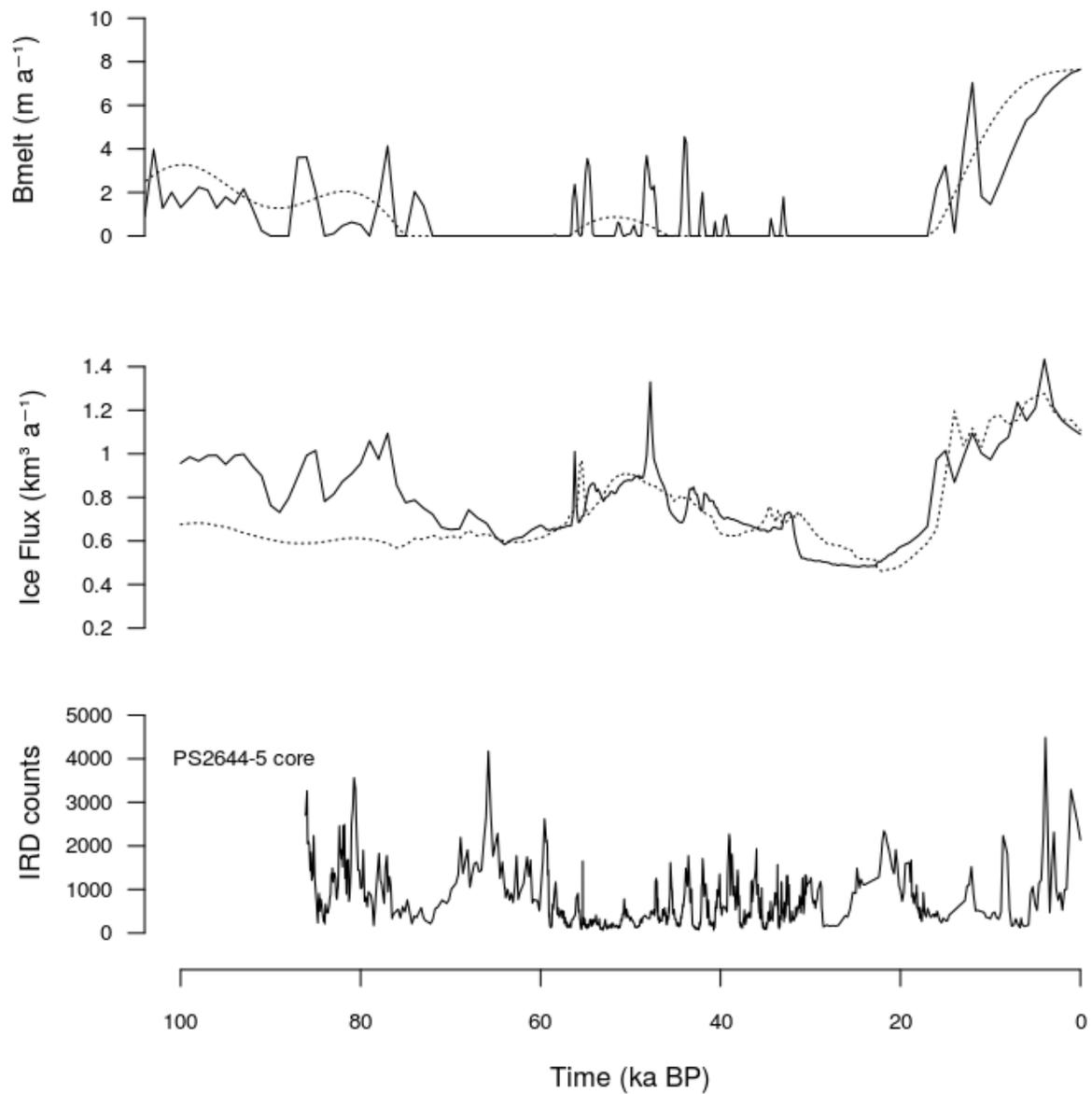


Fig. S6 Simulated submarine melt (upper panel) and simulated ice flux averaged over the Northern part of Denmark Strait (middle panel) are compared to the total lithic fragments extracted from the sediment core PS2644-5 close to the North West Iceland (lower panel). IRD counts from Voelker and Hafliðason, 2015.