



Figure S1: a) Crevasse propagation with different time steps. The blue lines are the shape of crevasses after 0.15 yr with the LEFM routine called every 0.01 yr. The red lines are the shape of the crevasses after 0.15 yr with the LEFM routine called every 0.005 yr. b) Zoom in to the grounding line region.

The inputs of our model are included in the netcdf file `inputsdata.nc`. The file includes latitude, longitude, surface elevation, ice thickness, bed elevation, surface mass balance and friction coefficient data for the flowline we selected.