Supplement of Adv. Geosci., 65, 71–81, 2024
https://doi.org/10.5194/adgeo-65-71-2024-supplement

Advances in Geosciences
Open Access
EGU

Supplement of

Assessing future ice-sheet variability for long-term safety of deep geological repositories

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Table S1. Description of the eight tunable parameters in the conceptual model (Paillard 1998). The values and ranges of the parameters used in this study are also indicated (see further Section 3.1.3 in Lord et al. 2019).

Parameter	Description	Value/range
1	Time constant for interglacial regime (ig)	2 to 11 kyr
2	Time constant for mild glacial regime (g)	1 to 95 kyr
3	Time constant for full glacial regime (G)	47 kyr
4	Time constant	25 to 39 kyr
5	Truncation parameter	0.1 to 1.5
6	Initial normalised ice volume of model	0.35
7	Insolation threshold for ig to g transition (i0)	–0.8
8	Insolation threshold for G to ig transition (i1)	–1 to 0.4

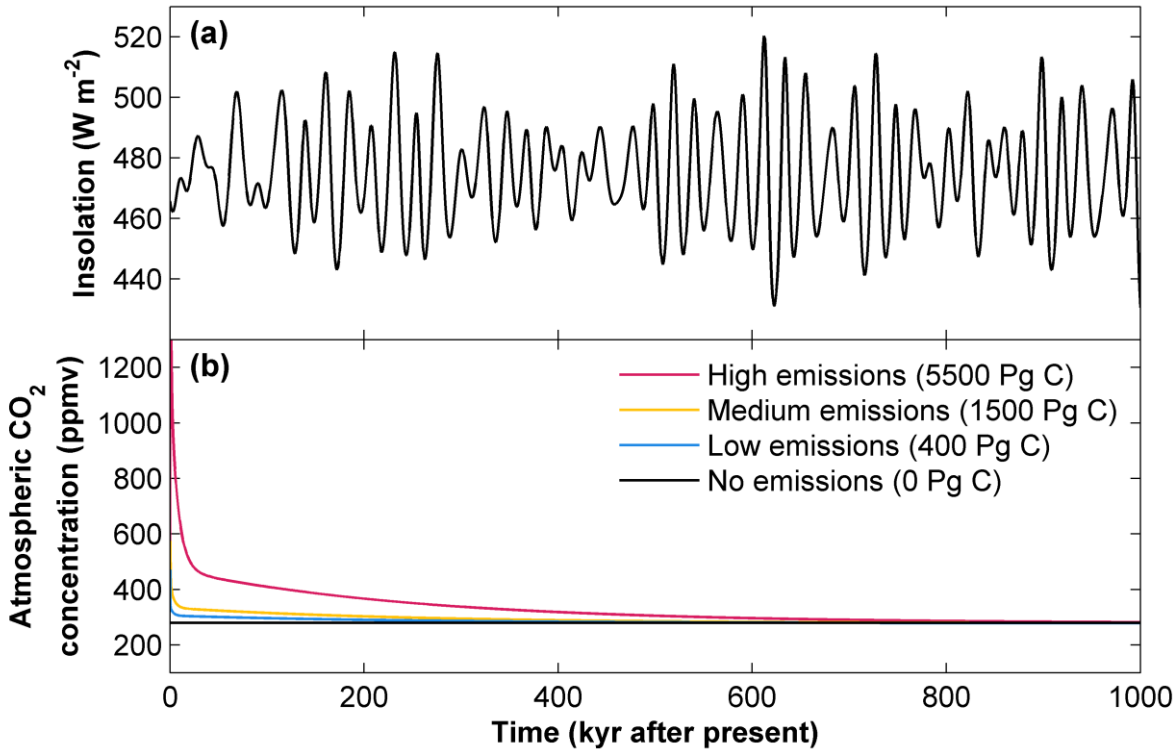

Figure S1: Evolution of climate forcing agents for the conceptual model over the next 1 Myr. (a) Average June 21–July 20 insolation at 65°N (Laskar et al., 2004). (b) Atmospheric CO_2 concentrations based on present-day releases of CO_2 emissions amounting to 0 Pg C (black line), ~400 Pg C (blue line), ~1500 Pg C (yellow line) and ~5500 Pg C (red line).

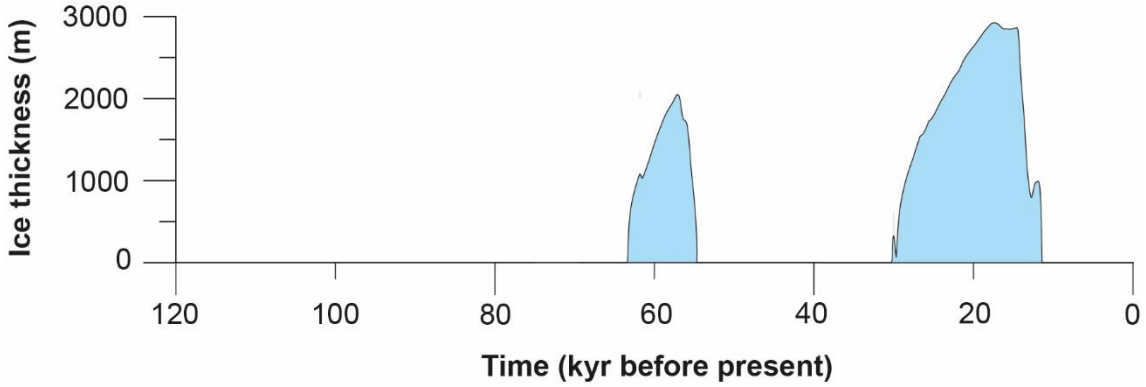

Figure S2: Reconstructed periods of ice-sheet coverage and associated ice-sheet thickness during the last glacial cycle. Modified from SKB (2020).