



Supplement of

Brief communication: Sensitivity of Antarctic ice shelf melting to ocean warming across basal melt models

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S1. Bulk quantities

In the table below, absolute values of melt rates, deep melt rates, and deep amplifications are provided for each model and each scenario. These numbers can be derived from the absolute numbers in Fig. 1, and the relative numbers in Fig. 2 and the supplementary figure below.

Table S1. Bulk quantities of average melt rate M, average melt rate in the deepest 10% of ice shelves M₁₀, and the deep amplification DA.

Model	Scenario	M (m yr ⁻¹)	M ₁₀ (m yr ⁻¹)	DA
Observation	Reference	0.60	2.00	3.3
Quad.	Reference	0.60	4.04	6.7
	+1 °C	2.03	11.91	5.9
	+2 °C	4.69	25.66	5.5
PICO	Reference	0.60	1.23	2.1
	+1 °C	1.38	2.55	1.8
	+2 °C	2.41	4.06	1.7
Plume	Reference	0.60	2.04	3.4
	+1 °C	1.65	3.92	2.4
	+2 °C	3.10	6.24	2.0
LADDIE	Reference	0.58	2.42	4.2
	+1 °C	1.69	6.97	4.1
	+2 °C	3.76	14.40	3.8
N.N.	Reference	0.46	0.78	1.7
	+1 °C	0.76	1.62	2.1
	+2 °C	1.11	2.51	2.3

5 S2. Spatial melt difference to +2 °C warming

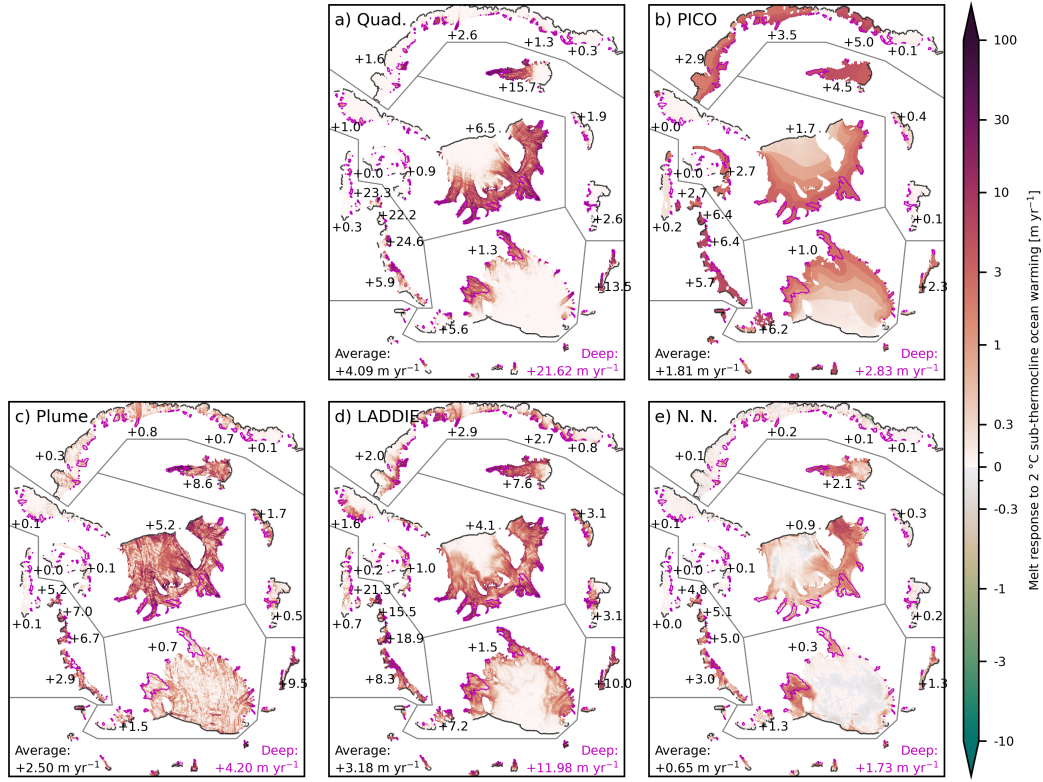


Figure S1. As Fig. 2 in the main article, for +2 °C warming. Spatial melt response to a 2 °C sub-thermocline warming expressed as the increase in melt relative to the reference (shown in Fig. S1) for (a) the Quadratic parameterisation, (b) PICO, (c) the Plume model, (d) LADDIE, and (e) the Neural Network (N.N.). Grey (black) contours surrounding ice shelves denote the grounding line (calving front). The numbers indicate the average response for selected ice shelves. The numbers at the bottom denote the Antarctic-wide average response (left) and the Antarctic-wide response averaged over the deepest 10% of all ice shelves (bottom right in magenta).