

CMIP-5 scaling
with time delay

Observed
interval

Antarctic
ice sheet models

Global mean
temperature
increase

Subsurface
Antarctic Ocean
temperature

Basal ice shelf
melting

Antarctic outlet
sea level
response

$$\Delta T_o(t) = \alpha_r \cdot \Delta T_G(t - \tau_r)$$

$$\Delta m = \beta \cdot \Delta T_o$$

$$\Delta S(t) = \int_0^t d\tau \Delta m(\tau) \cdot R_r(t - \tau)$$