

Interactive comment on “Description of a hybrid ice sheet-shelf model, and application to Antarctica” by D. Pollard and R. M. DeConto

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Received and published: 27 June 2012

In addition to the review posted yesterday, I have one question related to basal sliding. Instead of Eq. (10) (page 1089), can the model also deal with a Weertman-type sliding law of the form

$$\tilde{u}_b = C' \frac{|\tau_b|^{m-1}}{N_b^q} \tau_b,$$

where N_b is the basal normal stress and $q > 0$ an exponent? In particular, is there an extension of Schoof’s (2007) parameterization for the flux across the grounding line (Eq. (8) on page 1087) for this case?

Interactive comment on Geosci. Model Dev. Discuss., 5, 1077, 2012.

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