**Geoscientific
Model Development
Discussions**

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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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

$$\tilde{u}_{\mathsf{b}} = C' \frac{|\tau_{\mathsf{b}}|^{m-1}}{N_{\mathsf{b}}^{q}} \, \tau_{\mathsf{b}} \, ,$$

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?