



## **Model sensitivity of ice flux over the grounding line to present-day climatic forcing and geothermal flux**

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Large uncertainties remain in the current and future contribution to sea level change from Antarctica from observations and numerical flow modelling. Within the SeaRISE project atmospheric, oceanic, and subglacial forcing scenarios were applied to different ice-sheet models to assess Antarctic ice sheet sensitivity over a 500 year timescale. The scenario results have been compared to the individual state of each model at the end of its spin-up. It has been shown, that the model results highly depend on the chosen climate forcing and spin-up strategy.

Here we use the Parallel Ice Sheet Model (PISM) to perform spin-up simulations across different data sets for present-day boundary conditions for the Antarctic Ice Sheet (surface temperature, surface mass balance and geothermal flux). The utilized spin-up methods include free evolving and geometry constrained simulations. Here we present our analysis of the ice flux over the grounding line for each set-up and compare the fluxes from large drainage basin units with estimates derived from remote sensing.