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## Characteristic buttressing of Antarctic ice shelves

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The increasing dynamical loss of grounded ice in response to thinning of surrounding ice shelves is the main driver of the current sea level rise contribution of Antarctica. The observed acceleration of the ice streams is caused by reduced buttressing of the ice shelves connecting the grounded ice flow to the warming ocean. Several methods have been used to analyze the back-stress of the ice shelves at individual grounding line locations, however none of those quantify the state of the whole shelf. Here we present shelf-wide definitions of buttressing for major Antarctic ice shelves, based on the stress-balance at the grounding line, that respond consistently to ocean warming. We use the Parallel Ice Sheet Model (PISM) at 8km grid resolution and diagnostic output from Úa with a resolution of 200m at the grounding line. We show an increase in buttressing for more confined ice shelves and a decrease under idealized ocean warming. With the shelf-wide buttressing, the role of buttressing in the (de-)stabilizing capabilities of ice shelves on marine ice streams can be investigated.