

Development of a numerical ice-sheet/ice-shelf model IcIES
and its performance on the MISMIP(+) experiments

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Ice sheet model for Integrated Earth-system Studies (IcIES) has been developed to simulate Greenland and Antarctic ice sheets as well as paleo-climate studies of past Northern Hemisphere ice sheets.

Experimental design for Marine Ice-Sheet and Ocean Model Intercomparison Projects (MISOMIP) has been launched (Asay-Davis 2015, GMDD).

Marine Ice-Sheet Intercomparison Projects third phase (MISMIP+) is one of the three subprojects of MISOMIP, which focuses on the comparison among 'stand-alone' ice-sheet/ice-shelf models.

Seven sensitivity experiments are proposed: each of them is a 100-year (optionally 900-year) transient simulation under prescribed basal melting below ice shelf.

This study reports preliminary tests of MISMIP+ experiments using IcIES.

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