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The ISMIP HEINO project: Intercomparison of large-scale oscillations in ice-sheet models

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HEINO Heinrich Event INtercOmparison, under the umbrella of ISMIP (Ice Sheet Modelling Intercomparison Project), investigates self-sustained large-scale oscillations (Heinrich Events, HEs) in ten different ice-sheet models. Here, we will present the final analysis of the results of the HEINO intercomparison project. The problem consists of a flat square with 4000 km side length. This square contains an area resembling Hudson Bay and Hudson Strait, on which rapid sediment sliding can occur. The ice sheet is built up over 200,000 years by assuming temporally constant glacial climate conditions (detailed description at http://www.pik-potsdam.de/~calov/heino.html). The majority of the ice-sheet models (eight of ten) reproduce HEs. Although there are differences in surge amplitude, duration and recurrence time, the intercomparison shows a number of features which all models have in common.

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