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ACG033-P05

Room:Convention Hall

Time:May 25 10:30-13:00

## Response of Greenland ice sheet to global warming simulated by a high-resolution ice sheet model

Fuyuki SAITO<sup>1\*</sup>, Ayako Abe-Ouchi<sup>2</sup>, Kunio Takahashi<sup>1</sup>

<sup>1</sup>JAMSTEC, <sup>2</sup>AORI, Univ. of Tokyo

We present numerical experiments of Greenland ice sheet to global warming using Ice sheet model for Integrated Earth system Studies (ICES). A high resolution (until around 5km horizontally) is chosen in order to better resolve locally high velocity regions of ice-stream. The ice sheet model is forced by the results of global warming experiments simulated by climate models. Effect of ice-sheet dynamics on changes in the ice sheet volume will be compared with that of that of climate condition such as changes in melting and accumulation due to the global warming. Uncertainties in the model result due to the horizontal resolution are also compared with those to several factors such as parameterization schemes in the model.

Keywords: ice sheet, global warming