

1046-76-748

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Observations and Modeling of Ice Sheet - Ocean Interaction. Preliminary report.

In this talk we review some of the recent advances in observations and modeling of ice sheet and ocean interaction. In particular, we will focus on the ice shelves that fringe large areas of the coastlines of Antarctica and Greenland. Such ice shelves are relevant because they are believed to act as a 'backstop' that keeps the inland ice from quickly entering into the ocean, and thus driving up global sea level. There remains considerable uncertainty in both the understanding of the key physical processes governing ice shelf behavior and the optimal numerical schemes to represent such relatively small scale features with the context of global climate simulations. Predicting the behavior of the ice shelves in a changing climate, and hence of global sea level, is a major goal for coupled models of the climate system. (Received September 10, 2008)