



## Impacts of the future Greenland icesheet melting on the global climate

H.-R. Kim (1), S.-I. An (1), B.-M. Kim (2), and A. Timmermann (3)

(1) Yonsei University, Department of Atmospheric Science, Seoul, Democratic People's Republic Of Korea  
(sian@yonsei.ac.kr, 82-2 365 5163), (2) Korea Polar Research Institute, (3) University of Hawaii, International Pacific Research Center

To investigate the impact of the future Greenland icesheet melting on the global climate, we perform the Greenland icesheet melting experiment using the Fast-Ocean-Atmosphere-Model (FOAM). The speed and changing shape in time of the Greenland icesheet for the future climate have been estimated based on the recently observed melting speed and shape change of Greenland icesheet from satellite and the results from the high-resolution icesheet model. We especially focus on the changes in the Atlantic meridional overturning circulation and Northern hemispheric atmospheric circulation.