

Atlantic Meridional Overturning Circulation under Warm Climate



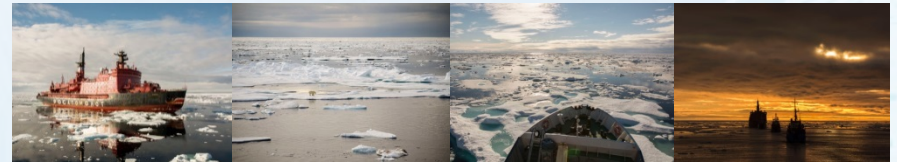
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Unravelling the effect of freshwater inputs from the demise of the Greenland ice sheet is crucial to better apprehend near-future climate. A change in the stratification of the

Nordic Seas could have major impact on convective processes and North Atlantic circulation, which, in turns, could create major climate disturbance in rainfall and drought frequency, Arctic sea-ice and even hurricane activity in the Atlantic. Despite its global importance to Earth's climate, the fate of open-ocean convection is still unresolved, especially regarding the potential effects of freshwater inputs from the demise of the Greenland ice sheet. While it is widely accepted that increased freshwater would drastically decrease the surface water density, thus preventing convection, there are still gaps in our understanding of the sensitivity of this system to the intensity, timing and location of freshwater input. I will use stable isotopes to track down the effect of freshwater input on the AMOC intensity during the last millennium and during marine isotope stage 11, a period often used as a near-future climate analogue.



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11:30 a.m.



**Conference Room, 3/F,
Mong Man Wai Building**



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