



Circulation and glacial melt in the subpolar North Atlantic

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The subpolar North Atlantic is a key region for climate and for the strength of the Atlantic meridional overturning circulation (AMOC). Climate models project a weakening of the AMOC, but it is uncertain whether the AMOC was affected by anthropogenic influence in the last decades or whether the observed fluctuations reflect the natural variability of the system. Shipboard and moored physical observations, trace gas distributions, Argo and altimeter data are combined with the results of a high resolution ocean model to study and to quantify the circulation of the main components of the Atlantic meridional overturning circulation. The focus will be on the exchange between the subtropical and the subpolar North Atlantic and on the distribution of glacial melt from Greenland