



## Subpolar Atlantic cooling and North American east coast warming linked to AMOC slowdown

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Reconstructing the history of the Atlantic Meridional Overturning Circulation (AMOC) is difficult due to the limited availability of data. One approach has been to use instrumental and proxy data for sea surface temperature (SST), taking multi-decadal and longer SST variations in the subpolar gyre region as indicator for AMOC changes [Rahmstorf *et al.*, 2015].

Recent high-resolution global climate model results [Saba *et al.*, 2016] as well as dynamical theory and conceptual modelling [Zhang and Vallis, 2007] suggest that an AMOC weakening will not only cool the subpolar Atlantic but simultaneously warm the Northwest Atlantic between Cape Hatteras and Nova Scotia, thus providing a characteristic SST pattern associated with AMOC variations.

We analyse sea surface temperature (SST) observations from this region together with high-resolution climate model simulations to better understand the linkages of SST variations to AMOC variability and to provide further evidence for an ongoing AMOC slowdown.

### References

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