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Evidence for a sudden slowdown in Atlantic overturning around 1970

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Maps of global temperature trends over the 20th Century show a conspicuous region of cooling near the southern tip of Greenland. It has long been speculated whether this is related to a slowdown in the Atlantic meridional overturning circulation (AMOC), since a cooling patch in this area is a prime response to an AMOC slowdown in climate models.
Moreover, Thompson et al. (Nature 2010) reported a sudden drop in Northern Hemisphere sea surface temperatures around 1970.

We discuss multiple lines of evidence suggesting that both the cooling near Greenland and the drop in Northern Hemisphere SST are due to a sudden reduction in the AMOC starting around 1970, linked to the Great Salinity Anomaly. Since $\sim$ 1990 the AMOC appears to be recovering. This time evolution is consistently suggested by an AMOC-index based on surface temperatures, by the hemispheric temperature difference, by coral-based proxies and by oceanic measurements. We relate this sudden slowdown to the melting history of the Greenland Ice Sheet.

Using multi-proxy temperatures in the AMOC-index suggests that the sudden AMOC decline from 1970-1990 is an unprecedented event in the past millennium.