



## **Multi-decadal North Atlantic Variability Simulated by NEMO**

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Analysis of the sea surface temperature observations in the North Atlantic show clear evidence of a multi-decadal variability. The Nucleus for European Modeling of the Ocean (NEMO) ocean general circulation model with a  $0.5^\circ$  horizontal resolution has been used to investigate this variability. Model runs using climatological forcing, inter-annual forcing and North Atlantic Oscillation (NAO) derived forcing has been used in this investigation. The NAO forced simulation extends from 1825 until present and may provide useful initial conditions for decadal predictions before 1950. Particular attention is paid to the links between Atlantic Multi-decadal Oscillation (AMO) index, the Atlantic Meridional Overturning Circulation, and the NAO index.