



INFLUENCE OF IDEALISED FORCING AND BASIN CONFIGURATION ON THE ATLANTIC MERIDIONAL OVERTURNING CIRCULATION

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The aim of this work is the study of response of the Atlantic Meridional Overturning Circulation (AMOC) to variations in atmospheric forcing and basin configuration; the level-coordinate (MITgcm) and the isopycnal-coordinate (MICOM) ocean general circulation models are used to examine what controls the positions and extents of the upwelling and downwelling regions in an idealised North Atlantic basin. The models are set up for different cases of prescribed sea surface temperature structures, wind stress, or both. Preliminary results are also presented where the role of topography on the AMOC are examined by means of two sensitivity experiments: The effect of sloping boundaries, and how an abyssal ridge across the basin (a "Greenland-Scotland Ridge") influences the meridional transport.