



Dynamics of the Circumglobal Waveguide Pattern

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The Circumglobal Waveguide Pattern (CWP) is a dominant mode of variability found in the higher troposphere in the northern hemisphere winter. This pattern has a dominant wavenumber five signature and encompasses the whole hemisphere with centers of action located in the vicinity of the jet and jet exit regions. Previous studies have shown that it is significantly correlated with the North Atlantic Oscillation, possibly indicating a physical link between these patterns. Also, this pattern shows up as a difference between the future and present climate in coupled climate simulations. To investigate the dynamics of the CWP, we use the ERA 40 dataset and the 62 member ensemble of coupled climate simulations of the Dutch Challenge project. We will describe results of lead and lag correlation maps with emphasis on the evolution of the CWP and its relation to the NAO.