



## **Time scale interaction between decadal variability and the annual cycle of the SST in the North Atlantic**

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In this study the time scale interaction between decadal variability and the annual cycle of the SST is discussed. A 1000yrs global Coupled Atmosphere Ocean Model simulation(ECHAM5-MPI-OM) showed, that regions with large decadal variability in subsurface temperatures also have an annual peak in the spectra of SST anomalies. With the aid of an one-dimensional ocean model it is possible to reproduce this annual peak and to formulate an hypothesis for the mechanism of the time scale interaction between the SST and the decadal variability of subsurface temperature anomalies. Analysis of observed SST found an annual peak in the spectra of the SST anomalies in different regions, pointing towards decadal variability of subsurface temperatures.