



## **Interdecadal variability of Atlantic-European blocking activity during summer and its relation with Atlantic Multidecadal Oscillation**

N. Rimbu (1,2) and M. Ionita (1)

(1) Alfred Wegener Institute for Polar and Marine Research, Bremerhaven, Germany (Norel.Rimbu@awi.de), (2) Climed Research Center, Bucharest, Romania

We investigate the multidecadal variability of the Atlantic-European blocking during last centuries using observational, reanalysis and reconstructed data. It is shown that summer blocking activity in this sector is strongly modulated by the Atlantic Multidecadal Oscillation (AMO). Positive (negative) phase of the AMO is associated with low (high) blocking activity in this sector. We argue that local atmosphere-ocean interaction is the main mechanism behind AMO-blocking relationship. The modulation by AMO of blocking activity has important implications for the predictability of blocking-related climate anomalies in the Atlantic-European sector at multidecadal time scales.