



## **Representation of Atmospheric Blocking in the MiKlip Decadal Prediction System**

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Atmospheric blocking plays an important role in climate variability in the mid-latitudes. It is commonly related to extreme temperature and precipitation anomalies. Therefore, a good representation of blocking events is a considerable factor for climate modelling in general and near-term (decadal) climate prediction in particular.

In this study we investigate the representation of atmospheric blocking in the MiKlip decadal prediction system. MiKlip is Germany's national initiative for decadal prediction. We apply a slightly modified version of the commonly used blocking index suggested by Tibaldi and Molteni (1990). Seasonal and annual frequencies, as well as the longitudinal location of blocking situations are detected and quantified based on the blocking index. The index is derived from daily fields of 500hPa geopotential heights for various sets of ensemble hindcasts. Besides a lead-time dependent direct comparison to ERA-40 and ERA-Interim reanalyses, we suggest ways to quantify the accuracy and reliability of probabilistic forecasts of the number of blocking events.