

Abstract

This bachelor thesis analyses atmospheric blocking and its influence on European weather, with focus on Czech Republic. Atmospheric blocking is a phenomenon when western flow is interrupted by high pressure centre. The research subjects are summarising information about blocking, its formation, detection, climatology, annual cycle and interannual variability. At stations Praha-Klementinum and Olomouc was made correlation analyses different strengths of blocking in sector $60^{\circ} \text{ W} - 60^{\circ} \text{ E}$ (with step 15°) and monthly mean daily average, minimum, maximum temperature.

We find out, that blocking frequency has significant interannual variability and annual cycle for all strengths of blocking which we defined. Based on correlation analyses we found out for both stations significant negative correlation between average monthly temperature and frequency of blocking in winter, in spring and autumn negative correlation is less significant and in summer for some longitudes positive correlation was found. If we use for correlation analyses monthly mean of minimum or maximum temperature, differences are insignificant. Differences of correlations between Praha-Klementinum and Olomouc are slight, at Praha-Klementinum station is correlations slightly lower.