

The dissertation deals with the flux of moisture in atmosphere, and classification of circulation patterns written by the team of ČHMÚ in the territory of the Czech Republic. ERA – 40 re – analysis data are used for the moisture flow assessment. We examine the time period between September 1957 – August 2002. The flux of moisture is evaluated on four isobaric levels 300, 500, 700, 850hPa in grid point (coordinates 15 east longitude, 50 north latitude). The results confirm dominant West circulation in the territory of the Czech Republic. Western types synoptic situations dominate, by the extreme flux of moisture. In annual run of moisture, we can observe the late minimum and maximum onset. This is caused by the influence of Atlantic Ocean. Analysis of variance is used to prove the bilateral relationship between Classifications of circulation patterns.