Abstract:

The goal of this thesis is the evaluation of changes in rainfall-runoff regime in the Šumava region from time and spacial point of view. The thesis includes research and applied part. The research part is dedicated to the methods of evaluation of runoff changes and their possible causes in the Šumava region. In the applied part there is an analysis of precipitation - runoff regime for long-term time series of average annual and monthly discharges and also annual and monthly precipitations for selected gauging stations in Czech, German and Austrian part of Šumava using absolute and relative homogeneity tests and Mann - Kendall test for long-term trend. The results of this thesis showed significant changes in rainfall and runoff seasonality. One of the main aims of this thesis is the identification of possible orographical effect or the difference between windward and leeward part of Šumava. In conclusion the achieved results are evaluated, discussed and compared with subject publications.

Key words: absolute homogeneity, land-use, Mann - Kendall test, runoff, basin, discharge, relative homogeneity, season, precipitation, trend, Šumava