

The thesis compares climate classification of the Czech Republic based on two regional climate models (ALADIN-Climate and RegCM3) and on two model period (1961-1990 and 2021-2050). First, a short summary of climate classifications suitable for the Czech Republic is introduced. Above all are mentioned the classifications of Köppen, Kurpelová and Konček. The advantages of these classification are presented, especially their relation to occurrence of vegetation. Further, this thesis mentions today's regional climate models. The data of monthly values of precipitation and temperature were analysed by single classifications criteria and consequently visualized by the program SURFER to show individual climatic subtypes. The data represented averaged values for the periods 1961-1990 and 2021-2050. Finally the distribution and the veracity of both models are discussed.