

Abstract: Continentality of climate is one of the basic climate phenomena, describing the climate at current place according to annual changes of basic meteorological elements such as temperature, precipitation, etc. Its measure is usually expressed by indices and is being determined either according to observations using collected data or simulated by climate models. The goal is usually to determine the ability of climate models to represent the present state of climate and to determine and analyse the scenarios of future evolvement for Europe as an examined area. In present diploma thesis are briefly introduced terms like continentality, its indices, global and regional climate models, the ERA-Interim reanalysis, as well as the EURO-CORDEX initiative. Subsequently individual simulations are processed, analysed and compared with the observations according to the E-OBS dataset.