

This thesis' topics are measurements of climate's continentality and evaluations of relations between various indexes of thermic and ombic continentalities. All indexes are plotted on continentality maps of Europe created using the ArcGIS application.

Important part of the thesis consists of practical validation of relevancy of the new method for measuring degree of continentality based on research of phase shift (delay) of annual temperature diagram in relation to the sum of extraterrestrial radiation. This thesis deals mainly with the proof of closest relation between newly proposed index of thermic continentality and the pre-existing ombic indexes in comparison to the indexes of thermic continentality currently in use. Furthermore the thesis dwells into explanations of causes for territorial differences in new continentality index values related to circulatory and radiatory ratios of the Indian summer subseason. By examining the newly proposed index of thermic continentality in various latitudes it was determined that this method for measuring continentality is not applicable for several areas of subtropical zone where the temperature diagram is not majorly effected by solar radiation but instead by other factors. Therefore the results of this thesis include cartographic representation of the continentality rate according to the newly proposed index on the world map excluding the tropical zones defined by the tropics.

Key words: thermic continentality, ombic continentality, index E, extraterrestrial radiation, methods in climatology