



Relationship between the predicted changes in circulation and thermal conditions for Poland in winter in 2021-2050

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Thermal conditions are largely determined by atmospheric circulation. Therefore, projection of future temperature changes should be consider in relation to changes in circulation patterns. This paper asses to what extend changes in circulation correspond to spatial variability of winter temperature increase in Poland in 2021-2050 period. The daily data of the maximum, mean and minimum temperature and pressure from selected regional climate models and observations were used. Pressure data were used to determine the advection types and circulation character. Firstly, changes in frequency of circulation conditions between 2021-2050 and 1971-2000 period were examined. Then changes in air temperature for specific circulation type in relation to reference period were studied. Finally, influence of atmospheric circulation due to spatial temperature variation was discussed.