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Comparison of selected methods of analysis for the reconstructed fields of precipitation in the climate scenarios.

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Assess the reliability of the simulation in the reference period is a critical issue in climate projections. Methods used for comparing the fields in the grid points are not suitable for rainfall fields due to episodic nature of this phenomenon. The methods used enable to accept minor deviations in the location and intensity of precipitation. The analysis was carried out in two ways:
- adequacy of the absence or the occurrence of precipitation was analyzed by using the principle of the nearest neighborhood;
- methods of cluster analysis identified some objects described by the location and amount of precipitation, then compared the characteristics of the occurrence of these objects
Study were subjected to both the amount of rainfall and the data categorized by determining the threshold values. The values of daily precipitation RR were divided into five categories : RR <0.1 mm; 0.1 mm $\leq$ RR <1mm; 1 mm $\leq$ RR <5 mm; 5 mm $\leq$ RR <10 m, and RR $\geq$ 10mm . Categorized data allowed for comparing the scenario and the reference fields for different levels of precipitation. In addition, this gives the possibility to use a methodology for examining the compatibility of multi-way tables.
The research was carried for an area 13 E - 24 E and 48 N - 55 and the period of 1971-2000. As a reference data the EOBS data were used. The climate scenarios are taken from the ENSEMBLE project.