



Enhanced persistence of atmospheric circulation over Europe: fact or fiction?

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We have analyzed the persistence of circulation types using over twenty circulation classifications arising from the COST733 Action (most of them objective) in the period 1957-2002 in Europe and its sub-regions. The objective catalogues are based on the same gridded climatic data (ECMWF ERA40), but they differ in the classification method used and in the number of synoptic types. Significant seasonal trends in persistence (both positive and negative) are scarce, and are present in all seasons only in the subjective catalogues. In Hess-Brezowsky there is an abrupt shift towards higher persistence in 1986, whereas in the Hungarian subjective catalogue a smaller but significant negative shift took place in the same year. These statistical inconsistencies probably result from inhomogeneities in the catalogues. The research is conducted within the COST733 Action "Harmonisation and Applications of Weather Types Classifications for European Regions". The Czech participation in it is supported by the Ministry of Education, Youth, and Sports of the Czech Republic, contract OC115. The study was also supported by the Grant Agency of the Academy of Sciences of the Czech Republic, contract A300420506.