



Climatology of cut-off low systems in the Greater European Alpine region

N. K. Awan and H. Formayer

Institute of Meteorology, University of Natural Resources and Life Sciences, Vienna, Austria (nauman.awan@boku.ac.at)

In this study the authors attempt to present a climatology of the cut-off low systems (COLs) for the Greater European Alpine region (GAR). The presented climatology is based on an algorithm which uses physically based criteria to detect COLs in the European Center for Medium-Range Weather Forecasts reanalysis ERA-40 dataset. Moreover, an in depth analysis is carried out to understand the relationship between COLs and extreme precipitation events which can affect large areas (~ 75 sq. km is considered) in the GAR. This is achieved by coupling the algorithm with the Swiss Federal Institute of Technology Zurich precipitation dataset. The presented analysis also highlights the relevance and importance of COLs in manifestation of Alpine extreme precipitation events.