



TRACKING CYCLONES IN REGIONAL MODEL DATE: THE FUTURE OF Vb CYCLONES

D. Jacob (1), **M. Muskulus** (1) and R. Podzun (1)

(1) Max Planck Institute for Meteorology, Hamburg (muskulus@dkrz.de)

Regional models are useful tools for climatological studies, resolving mesoscale phenomena and allowing for climatological change detection. In this study we have used a high-resolution REMO model run for the period from 1965 to 2100, tracking the well known type Vb cyclones, responsible for major European flood events in past years. Due to model resolution, new issues in tracking arise: Local fluctuations and cyclone substructure cannot be handled by the usual method of looking for local minima only. Using methods from image analysis, we obtain estimates for the spatial extent of cyclones, enabling better tracking and classification. The future of Vb cyclones is discussed as concerns frequency, cyclone tracks and precipitation.