

## **Precipitation studies above Belgium using COSMO model and observational data**

T. Böhme (1), N. Van Lipzig (1), and L. Delobbe (2)

(1) Katholieke Universiteit Leuven, Department of Earth and Environmental Sciences, 3001 Leuven-Heverlee, Belgium (timboehme@gmx.de) , (2) Royal Meteorological Institute of Belgium, 1180 Brussel, Belgium

Correct precipitation forecasts and knowledge of temporal and spatial variations in precipitation are important for many disciplines in society. Intense precipitation events can cause heavy damage when floods are destroying infrastructure. Precipitation variations largely affect other processes like soil erosion, sedimentation etc. Therefore studies on precipitation processes are essential in atmospheric research.

Using a high resolution (2.8 km) state-of-the-art numerical weather prediction model (COSMO) precipitation processes are investigated in case studies as well as in long-term seasonal studies above Belgium. Two contrasting spring-summer seasons are chosen in order to study the yearly precipitation differences and the mechanisms behind these differences. The spring-summer period is chosen for the studies because it is contributing to most of the yearly precipitation. In addition the precipitation is highly variant because of prevailing convective situations.

The results of these studies will be presented in comparison with observational data.