



## **Validation of a present-day regional climate simulation for East Africa**

**F. Kaspar**

Institute for Meteorology, Freie Universität Berlin, Carl-Heinrich-Becker Weg 6-10, 12165 Berlin, Germany (frank.kaspar@met.fu-berlin.de)

One aim of the German research group RiftLink is to analyse the feedback between tectonic uplift, regional climate change and erosional denudation. In the climate modelling contribution it is intended to perform high resolution climate simulations for East Africa, and especially for the surrounding of the Rwenzori mountains, in order to explore the role of the uplift for regional climate changes. These simulations will be run with different configurations of the topography representing different stages of the last 10 million years. The non-hydrostatic regional climate model CLM will be applied, which is the climate version of the regional weather prediction model of the German Weather Service. It is developed as a community effort of several universities and research centres ([www.clm-community.eu](http://www.clm-community.eu)). As a first step, we present simulations of East African present day climate which are performed to analyse the capability of the model to simulate a realistic climate of the region. These first simulations are performed with a spatial resolution of  $0.5^\circ$  for the region  $20^\circ\text{S}$  to  $20^\circ\text{N}$  and extend from the Atlantic to the Indian ocean. The model is forced at the lateral boundaries with the global ERA 40 reanalysis. In this contribution we evaluate the quality of the simulation by comparing it with observed precipitation data. The results of the simulation can be helpful to understand the relationship between geological datasets of different locations.