



## **Vegetation and soil characteristics data in the COSMO-CLM and WRF regional climate models**

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The paper investigates the vegetation and soil characteristics time invariant boundary data of two regional climate models CCLM (CONsortium for Small-scale MOdeling - COSMO in CLimate Mode) and WRF (Weather Research and Forecasting Model). The available choice of the data is presented and the interchangeability from CCLM point of view is investigated. In several runs of the CCLM with ERA40 and NCEP boundary forcings the question how the selected invariant boundary influences actual CCLM simulations is addressed. The considered model domain is the MED-CORDEX (Mediterranean COordinated Regional Climate Downscaling Experiment) area.

Despite of incompatibilities in the land use and soil texture category definitions a principal suitability of all investigated data sets was found. Variations in the modeling results introduced by the specific choice of time invariant boundary reach up 1.1 K in the area monthly mean temperature and up to 18% in the area mean precipitation. In total they are in range of the variations which result from the choice of reanalysis data. Thus, addition efforts in improvement of the time invariant boundary data applied in SVAT models associated with regional climate models can help to reduce the uncertainty in the modeling results.