



Comparison of water fluxes in ERA-Interim Reanalysis, HOAPS, and COSMO-CLM data

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The Mediterranean Sea is an important source of atmospheric water vapour and the local water budget changes the amount of moisture in North Africa and Europe. Evaporation and water vapour transport are relevant drivers of precipitation. For example, during Vb-events the water vapour transport from the Mediterranean to the eastern part of Central Europe causes extreme precipitation there. To simulate heavy precipitation events, the necessary transport processes have to be well represented in model simulations. Therefore, the water vapour transport and precipitation in ERA-Interim and HOAPS data are compared with COSMO-CLM data over Europe. This gives insight in the simulation of the water vapour sources and sinks, as well as precipitation with the coupled regional climate model COSMO-CLM.