Application of FLake in the CLM-Community

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On the basis of the weather forecast model Local Model (LM) of the German Weather Service the Climate Limited-area Modelling Community (CLM-Community) developed the regional climate model CLM (Climate version of the LM) that has been applied in several national and international projects. Simulations in the past years where mostly performed on grid mesh sizes between about 20-50 km. On this resolution the land/sea mask (the model does not include fractional land/sea) show only a few lake points, at least over Europe. Therefore there was no major concern about the lack of a lake module for the model. However, there are demands on simulations with higher resolution nowadays as well as on regional climate simulations in other regions on earth. This also means that a better representation of lake in the model becomes more important.

With the new combined latest versions of LM and CLM into the new COSMO model one regional model for both weather forecast and climate was developed. When running in climate mode we use the acronym CCLM (COSMO model in CLimate Mode). This model includes the lake module FLake.

On the workshop the future plans in using the FLake module in the CCLM simulations by the CLM-Community will be presented.