



How can regional climate models reproduce the annual cycle of precipitation in Europe?

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When preparing for climate services provision the reliable information from the model simulations has to be available. The assessment of the ensemble of available EuroCORDEX simulations will be provided in terms of monthly mean analysis of precipitation. Both ERA-Interim perfect boundary conditions simulations and historical runs driven by different GCMs from CMIP5 are validated against E-OBS data and compared for both available resolutions (0.11 and 0.44 deg.). The results are presented using the maps of model biases as well as in terms of the areal statistics for PRUDENCE regions, where former ENSEMBLES ensemble of regional simulations is used for comparison. No significantly better results can be seen when comparing the results of 0.11 deg. resolution with respect to the 0.44 deg. Moreover, while both ensembles (basically all the members) are in very good agreement in annual cycle for temperature and very close to the reality, for precipitation quite significant disagreements appear for many of the simulations over some regions, in both ensembles, especially in terms of annual course.